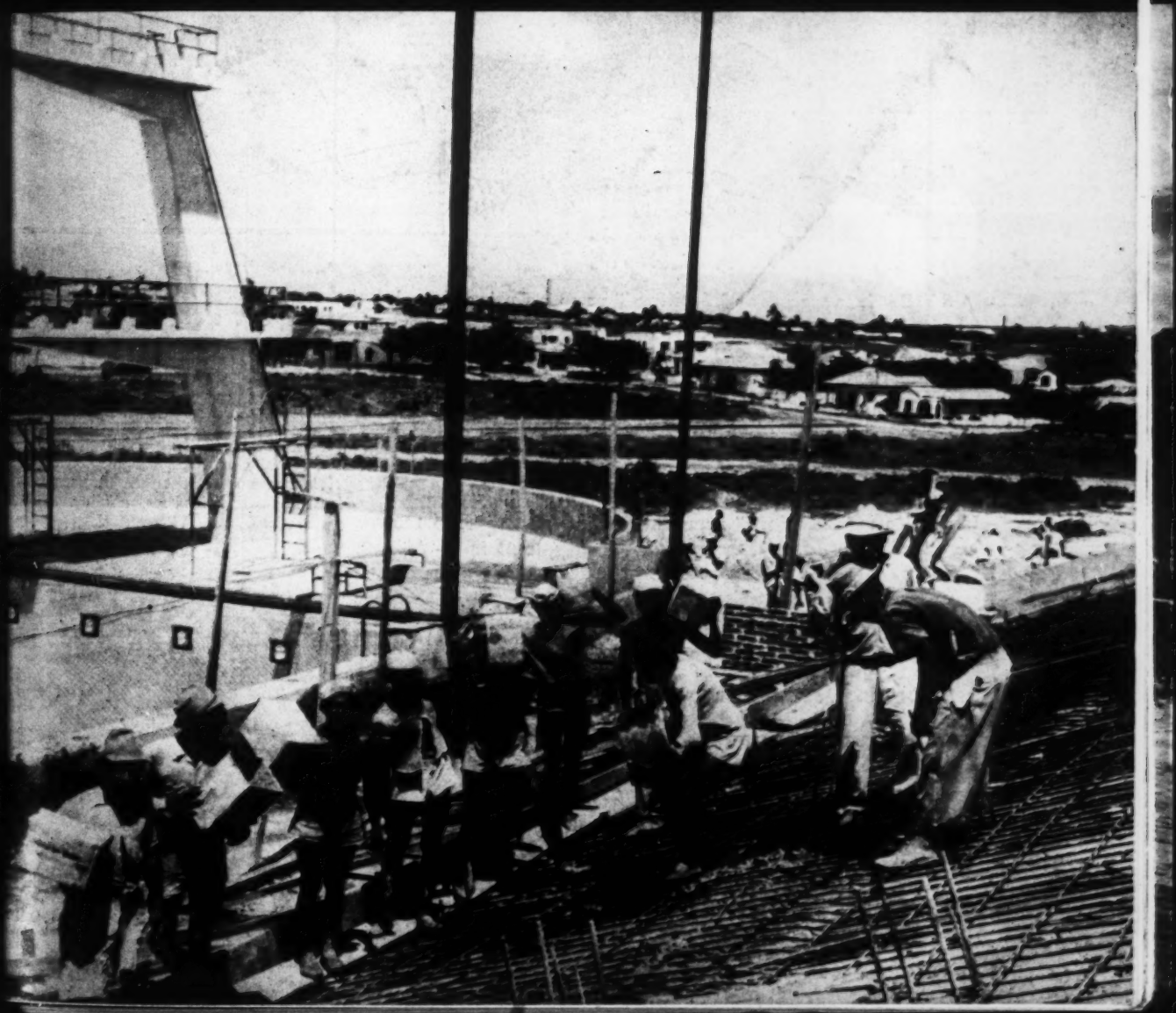
ENGINEERING NEWS-RECORD

Stadium construction in Colombia (see inside) calls for huskies to place concrete



ALL PUMP AND MOTOR PARTS ARE
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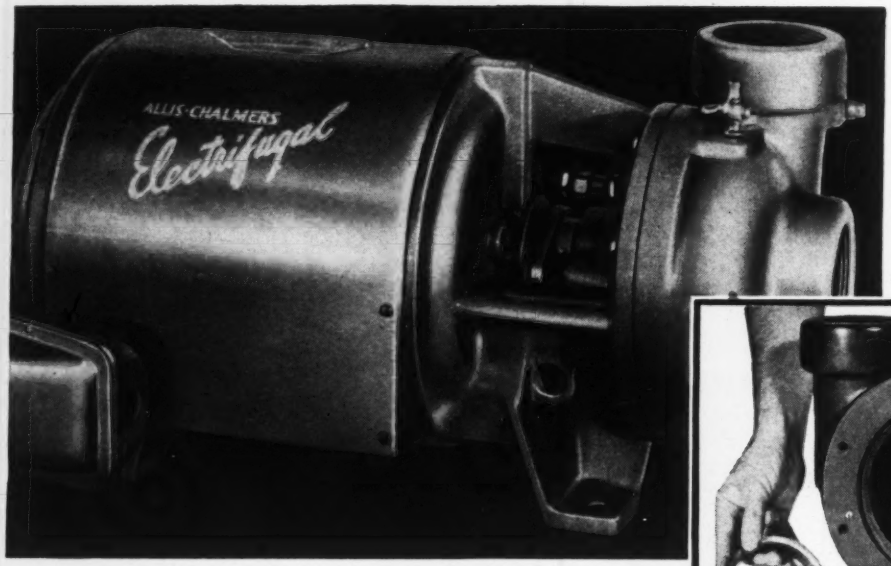

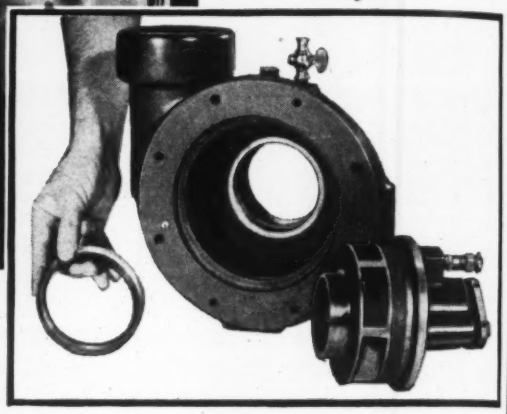

"Electrifugal" PUMP SIMPLIFIES MAINTENANCE

AS THIS photo suggests an "Electrifugal" pump is simple and sturdy in design. Moving parts are few and easy to get at. The pump can be taken apart readily, for inspection and replacement of packings or wearing rings, when necessary.

Compact, rigid design gives you an efficient, quickly installed "package" pump ideally suited to a wide range of applications . . . low in first cost and cost of operation.

COMPLETE LINE OF CENTRIFUGAL PUMPS

In addition to "Electrifugal" pumps in capacities of 15 gpm to 1600 gpm, heads to 500 feet, motor hp ratings from ¾ to 25 hp — Allis-Chalmers designs and builds a complete range of sizes and types of centrifugal pumps up to capacities of 170,000 gpm.

In Allis-Chalmers' broad line you can select from single and double suction, single and multi-stage, liquids and solids-handling types . . . offered with and without Allis-Chalmers motors. Ask for bulletin B6059. ALLIS-CHALMERS, MILWAUKEE 1, WISCONSIN. A2072

Construction Features That Cut Pumping Cost:

ONE RIGID FRAME supports both pump and motor. Impeller and rotor are on the same shaft. No coupling and aiignment troubles — vibration cut to a minimum.

LO-MAINTENANCE splash-proof motor, specially built for pumping service . . . in the same plant that makes the pump. That means undivided responsibility.

BRONZE WEARING RINGS protect casing from wear. New plastic water seal and five or more generous packings are additional long-life features that cut maintenance costs.

PROVED PERFORMANCE . . . every unit thoroughly tested at the factory; efficiency, capacity and head are carefully recorded and filed for reference. A 2072

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One of the Big 3 in Electric Power Equipment
★ Biggest of All in Range of Industrial Products ★

CENTRIFUGAL PUMPS

News of the Week

ENGINEERING NEWS-RECORD • NOVEMBER 21, 1946 • VOLUME 137 • NUMBER 21

Builder group sees material production ample in 1947

Newly-organized Building Products Institute predicts industry can meet needs of 1,200,000-house program for coming year unless strikes block production

Unless production is delayed by strikes, adequate building supplies will be available next year to build 1,200,000 homes and to carry out all the non-residential construction that is likely to be started, the newly organized Building Products Institute reported Nov. 13.

However, the builders and contractors will not be able to utilize all the available materials unless the remaining federal controls on construction are removed, the institute said.

The new organization was formed early in November by representatives of 200 companies and associations engaged in the manufacture of building materials and equipment (*ENR* Nov. 14, vol. p. 627). It is planned as a fact-finding and economic research organization. Legislative developments will be watched closely, and, if the occasion arises, the institute's representatives will appear before Congressional committees holding hearings on bills pertaining to the production and use of building materials.

In looking forward to next year the institute is forecasting adequate materials for $20 billion of construction in 1947, including $8.5 billion of non-housing work and $6 billion of repair and maintenance. The $8.5 billion total includes $3.5 billion of public works. However, the institute feels that the remaining federal controls pertaining to construction, including the set asides of building supplies, allocations, material priorities, and project approvals for building, must be eliminated to obtain the total listed. Removal of the ceilings on the selling prices and rentals of new homes is also demanded. Continuation of the controls over non-housing work are not considered necessary in view of the large output of building supplies expected.

As spokesman for the institute, Chairman Whitlock has summarized the expected developments in building costs as follows: "Manufacturers of building products expect a definite decrease in building costs as a result of the removal of price ceilings. Low-cost products which could not be produced under the ceilings kept in effect by OPA will become more plentiful quickly and black market prices soon will become a thing of the past.

"While we cannot predict the trend in wage rates, we believe that the productivity of labor will increase sharply as soon as the restoration of a normal flow of products puts an end to materials shortage appearing on the construction site."

Considerable work has been done already by the institute. It has had a very good response in raising funds and a staff has been selected. Douglas Whitlock, former president of the Producers' Council, has been chosen chairman of the new organization and will act as legislative counsel, and Miles L. Colean, former assistant administrator of the Federal Housing Administration, has been named economic consultant. R. G. deQuevedo has been employed as secretary and has established offices at 1756 K Street, N. W., in Washington, D. C.

The newly formed body has already taken a stand demanding the removal of all federal controls pertaining to building supplies and construction work. It has also come out strongly against some phases of the Wagner-Ellender-Taft housing bill, declaring that private industry will be able to do the necessary housing job if left free from government red tape and interference with prices, wages and schedules.

CPA to tabulate approved projects

The Bureau of Construction and Field Operations of the Civilian Production Administration has established at its Washington headquarters a central file on all types of industrial and commercial construction applied for and authorized under the restrictions set up by the CPA to stimulate production of housing for veterans.

Information is being received and tabulated for subsequent analysis. CPA officials said that they had not decided precisely how much detail can be made available in this central file. However, three basic types of listings will be made: by CPA region, district and case number; by states and cities, and by the name of the applicant, alphabetically. Projects will be classified into eight major groups as follows: industrial, commercial, social and recreational establishments, other commercial construction, religious and educational, hospitals and institutional, public utilities, miscellaneous publicly-owned or operated buildings, and miscellaneous non-residential buildings. The industrial category will be subclassified into about 30 groups, with an undetermined number of subgroups under these.

Current plans call for the listing of applications denied as well as those approved, and for recording of such specific data as date of application, dollar value of each project, purposes of the project, locality of the undertaking.

Up to Nov. 1, the construction data for CPA regions 1, 3 and 10 had reached Washington, and it was believed that by January or February the data from all regional offices will have been tabulated. It is expected that there will be a lag of a month or six weeks between the records and the most recent action taken on construction applications. Information on actions of CPA field offices has been filed periodically in Washington since the start of the housing program, but these statements have been in the form of brief summaries which do not contain sufficient details to afford a nationwide survey of construction trends within a particular industry.

NEWS IN BRIEF

In telegraphic form, here are latest news developments on the engineering and construction front during the week.

Construction—Camden County has plans nearly ready for a $1,165,000 addition to the mental hospital at *Lakeland, N. J.* . . . University of Illinois *Urbana*, is asking for bids Dec. 6 for a $1,500,000 women's residence hall. . . . In *Miami, Fla.*, construction valued at $23,792,835 has been undertaken this year. . . . Approval of $6,500,000 in improvements for *Atlanta, Ga.* is announced, including a contract to Robert & Co., Inc., for engineering services on the projected $6,000,000 expansion of the municipal airport. . . . A federal grant of $70,000 has been made for preliminary plans for the development of the Mystic River Valley at *Medford, Mass.* . . . Construction of a $2,000,000 hotel on *Mt. Ranier, Wash.*, is being considered by National Park Service. . . . Deauville Hotel at *Miami Beach, Fla.*, plans a 6-story $1,000,000 addition. . . . Work has started on $3,000,000 worth of warehouses for the Brunswig Drug Co. at *Vernon, Calif.* . . . Ground has been broken for the new $2,000,000 plant for the Western Massachusetts Electric Co., in *West Springfield, Mass.* . . . The Radisson Hotel, *Minneapolis, Minn.*, is to start a $2,500,000 addition next February. . . . Preliminary work is starting on a $3,600,000 concrete pier on the site of the old Hoosac Terminal at *Boston, Mass.* . . . Bids have been called for two $1,500,000 jobs in central *Washington* state—a 6-story hospital at *Selah* and a science building for Central Washington College at *Ellensburg.* . . . Methodist Hospital, *Peoria, Ill.*, will erect an 8-story wing, with equipment, to cost $1,800,000. . . . Illinois State Normal University at *Normal, Ill.*, is planning a $3,000,000 building program. . . . About $1,500,000 will be spent on a plant on *Newark Bay, N. J.*, for the Irvington Varnish and Insulator Co. . . . Southern Railway Co. will build a $1,000,000 engine repair shop at *Chattanooga, Tenn.* . . . *Atlantic City, N. J.*, will build jetties to cost about $1,000,000.

Housing—Private housing projects planned in 11 areas of *Connecticut* number 3,600 dwelling units. . . . George Aurnt, Jr., will build a $1,000,000 residential development in *Delaware Township, N. J.* . . . Rittenhouse Built Homes, Inc., expects to start a million-dollar development in *Philadelphia, Pa.*, in January. . . . Earl Harder has plans ready for a $1,300,000 development near *Annapolis, Md.* . . . The New Jersey Department of Economic Development has awarded a $2,000,000 temporary housing contract to Atlas Builders, Inc., *Trenton.* . . . Irvin Korach of *Miami, Fla.*, will develop an exclusive residential section on *East Bay Island* at a cost of $3,000,000. The Cleveland Shaker Co. will build a 7-story, 73-unit apartment house at *Palm Beach, Fla.*, to cost $650,000. . . . Harris Park Homes, Inc., will build 148 houses at *Harrisburg, Pa.*

Highways—*Montana* highway commission will receive bids until Dec. 10 for 14 projects to cost about $2,000,000 . . . New Jersey State Highway Department has awarded a $767,896 contract for road and bridge construction in *Gloucester County* to F. A. Canuso & Son, Inc. . . . Of the $27,041,954 to be spent on *Maine* highways in the next two years a large part will be for maintenance and improvements of existing roads. . . . For seven consecutive months the *Texas* Highway Department has awarded contracts exceeding $5,000,000, about $44,000,000 now being under contract. . . . Total income of the *Delaware* State Highway Department in 1946, was $3,906,069.66.

Unions move on jurisdictional strikes

Concern over jurisdictional strikes by top leaders in the AFL Metal Trades Department, which includes some unions in the building and construction industry, was reflected in action taken at recent union conventions.

Admittedly, the corrective steps were taken as much to strengthen the unions and facilitate organizing activity as to eliminate strikes which, in the words of John P. Frey, president of the AFL metal trades organization, "have no economic justification."

The metal trades unions have adopted machinery for settling jurisdictional disputes without strikes and have been instructed to incorporate its provisions in their bargaining agreements and in agreements between the member unions. The United Association of Journeymen Plumbers and Steamfitters, at its own convention, revised its constitution to eliminate the division of work between plumbers and steamfitters that has existed since 1911, when the unions of these two crafts were merged into one. After Jan. 1, the 200,000 members of this union may work in both steamfitting and plumbing jobs, as is indicated by the new name of the union—United Association of Journeymen and Apprentices of the Plumbing and Pipe Fitting Industry of the United States and Canada.

Frey explained that jurisdictional machinery was adopted by the 15 metal trades unions, with a membership of 1,750,000, because jurisdictional strikes were "unnecessary" and "constituted a troublesome inconvenience to both industry and the public."

Four steps are provided for settling these types of disputes: (1) Officers of local unions involved first try to agree; (2) if they fail, the international presidents of the unions involved will designate representatives to seek an adjustment; (3) if a deadlock still exists, the international presidents themselves will try to reach agreement; (4) finally, if necessary, an umpire will be selected to make the decision.

Significantly, the chairman of the committee which proposed the no-strike machinery said:

"No one among us would attempt to justify jurisdictional work suspensions . . . They are breaches of faith and a violation of contracts with employers . . . If contractual relations with employers are to endure . . . we are compelled to make good our promises to the same extent that we insist upon the employer making good for us."

Unions in the Metal Trades Department are the boilermakers, blacksmiths, technical engineers, electricians, operating engineers, firemen and oilers, hod carriers and laborers, iron workers, machinists, metal polishers, molders and foundry workers, pattern makers, plumbers and steamfitters, sheet metal workers and stove mounters.

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N. Y. state engineers talk pay rates

Society fails to agree on the best way to meet issues raised by extension of union movement into engineering offices

Interest at the annual convention of the New York State Society of Professional Engineers, held in Syracuse, November 8-9, centered around a proposal made by the New York County Chapter that a special committee be set up "to examine and formulate administrative and legislative policies which will assist the professional engineer to uphold and maintain unimpaired the essential objectivity and the independence of his professional judgment."

Concerned over the spread of the union movement in large engineering offices in New York City to include many of the pre-professional and professional classifications, the New York County Chapter sought to have the convention adopt a resolution setting up such a committee and authorizing the committee to employ legal counsel experienced in labor matters. The same chapter recommended that the society encourage its chapters to hold courses in labor relations, open not only to engineers but to representatives of the labor and management side of the industry as well.

After discussion, it was decided to defer action on the proposed special committee until the winter meeting of the society.

Salaries and fees

Charles B. Molineaux, chairman of the Committee on Fees and Salaries, reported that little progress had been made to date in obtaining acceptance of the society's schedule of minimum fees and salaries that was issued early this year. He reported that this was due in part to the fact that the minimum salaries for professional engineers and engineers-in-training set forth in that schedule already are out of date. A new schedule is being drafted by the committee. Similar schedules of pay recently were approved by the American Society of Civil Engineers (*ENR* Oct. 31, vol. p. 563).

Engineers-in-training

Plans of the society to sponsor a state society of engineers-in-training have not yet borne fruit, according to John C. Riedel, chairman of the committee charged with that work, because the necessary 25 charter members have not yet been signed up.

Speakers at the banquet included Thomas F. Farrell, chief engineer of the New York State Department of Public Works, former deputy chief for the U. S. Engineer Department on the atomic bomb project, who discussed some of the implications of our new knowledge of atomic energy. James F. Fairman, vice-president of the National Society of Professional Engineers, stressed the need for bringing all engineers into one all-inclusive professional organization.

Work on large hospital to start at Montreal

Plans are being prepared for the construction of an orthopedic institute to be erected at Decarie boulevard and Cote St. Luc road, Montreal, Que., at a cost of about $2,500,000. Construction is expected to commence next spring and plans by Gascon and Parent, architects, are expected to call for a building providing for 350 beds.

U.S. roads chief checks European work

Thomas H. MacDonald, U. S. Commissioner of Public Roads, and Frederick C. Horner, director of field operations of the distribution staff of General Motors Corp., left New York City last week for London to confer with British and French highway officials.

The two men will also attend meetings which they hope will lead to postwar revival of international highway transportation progress. In a brief statement, Mr. MacDonald said that he and his companion will confer with government officials and representatives of private transportation groups in England and France, looking toward early resumption of prewar international cooperation in public and private programs for improving highway transportation. They said that the resumption of meetings of the International Association of Road Congresses is being considered, following an interval of eight years since the last meeting in 1938 at The Hague, at which Mr. MacDonald was chairman of the U. S. delegation and Mr. Horner was a member.

Both men will attend the Nov. 28-29 Paris meeting of the Highway Transport Committee of the International Chamber of Commerce, and Mr. MacDonald will make one of the principal addresses.

***Eads Bridge Being Repaired**—William J. Howard, Inc., Chicago, Ill., holds a contract for the entire work of repairing the Eads Bridge at St. Louis, Mo., which includes removal of the old timber and steel-framed deck, shown at left, and replacement with a concrete-filled, shallow I-beam grating on new steel cross beams. When repairs are completed next spring, the bridge will provide a 40-ft. 4-in. clear roadway and two 4-ft. 7½-in. sidewalks. Total dead load is reduced 800 lb. per foot of bridge by the new floor system. The project is 65 percent complete at present. In ENR Nov. 7, vol. p. 618, the Robinson Erection Co. of St. Louis was erroneously listed as general contractor.*

DEVELOPMENTS BEYOND U. S. BORDERS

Digested from reports by Engineering News-Record correspondents and the McGraw-Hill World News Bureau

Form international standardization group with American as chairman—Mexico's construction boom reported to be slowing down

England—A new organization—to be known as The International Organization for Standardization—came into official being here recently, as delegates from 25 nations completed meetings at London.

Howard Coonley, chairman of the executive committee of the American Standards Association, was elected president of the new organization; with Gustave L. Gerard, staff president of the Belgian Standards Association, as vice-president. Headquarters of the new group will be set up shortly at Geneva, Switzerland.

The organization (which delegates dubbed ISO for short) was formed by a group of engineers who met under the auspices of the United Nations. ISO, however, will be independent of the United Nations organization, although it will lend its facilities to UN if needed.

Formation of ISO consolidates into a single organization the work of the old International Federation of National Standardizing Associations and the war-born United Nations Standards Coordinating Committee. The International Electrotechnical Commission—a third important standardizing agency, is expected to affiliate with ISO shortly.

Existing standards groups united

Membership of ISO will be made up of existing national standards bodies, and its work will be carried on through technical committees upon which any country may be represented if it so desires. Its governing body will be a council of representatives of 11 countries, with five seats assigned—for 5-year periods—to the United States, China, France, Great Britain and Russia. Others represented initially on the council are Australia, Belgium, Brazil, India, Norway and Switzerland.

The new organization will use English, French and Russian as official languages, and although its formation must be ratified by 15 national standards bodies, it has already started work by reviewing the projects and reports of its two predecessor organizations.

ISO starts life assured of a much more secure financial backing than the previous organizations enjoyed, observers said, and will thus be able to maintain a more adequate staff. The cost of operation will be defrayed by contributions from all member nations based on a sliding scale of dues. The budget for the first year's work is set at $50,000. The constitution provides for a general assembly meeting every three years, in which each member-nation will have one vote, and provides that concurrence of five member-nations is required before any proposal is brought before the council for consideration. If the council decides to act on a proposal, the results of its investigations are to be brought before the general assembly, and, if passed by a three-fourths vote, the results will be issued as recommendations of the ISO to standards bodies of all nations.

Construction . . . .

Mexico—Mexico's 11-year building boom is perceptibly slowing down, a survey of business and government leaders indicates, as national materials shortages and restrictions on credit begin to make themselves felt.

In Mexico City alone, building permits shrank from 491 issued in January, 1946, to 82 in June, and an analysis of the permits shows that value of construction covered by these permits has fallen sharply. The 82 permits in June represented values of only about $1,000,000 for construction.

Building construction labor unions, alarmed at increasing unemployment among their members, are reported insisting that contractors continue to pay full wages even though projects are temporarily halted due to lack of materials.

Business leaders and construction men attribute a large part of the slowdown in construction to recent actions by the government in which it asked banks to tighten their credit requirements in an effort to curb inflation. Businessmen admit that the government plan is sound in principle, but complain that restrictions on credits have become a "menace" to industry.

France—French public works reconstruction—a tremendous job of repair and rebuilding—is now well over the hump, according to a summary of ac-

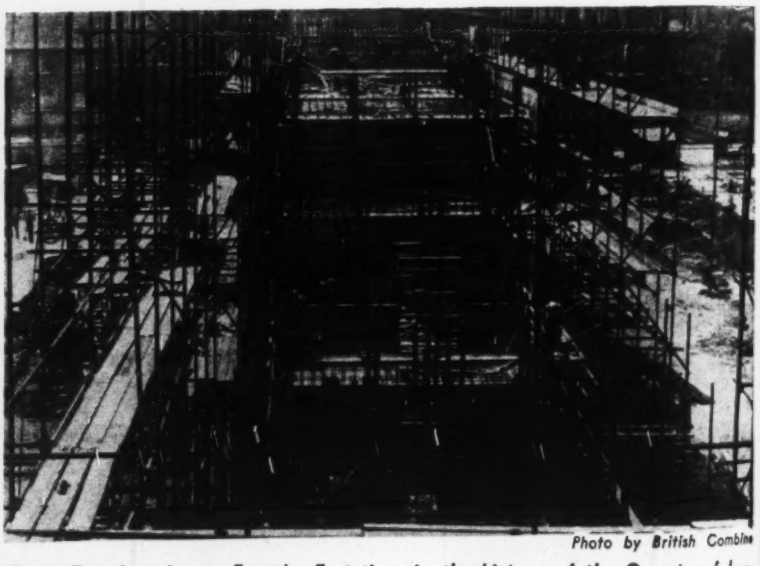


Photo by British Combine

First For London *—For the first time in the history of the County of London, England, 4-story blocks of apartments are being built almost entirely of reinforced concrete. Known as "Minerva Estates" the apartments are being built under authority of the London County Council, and will eventually provide 235 units for occupancy. Possibility of using relatively unskilled labor, and savings in critical materials led to the decision to use concrete for the $1,228,000 project. Units are expected to be complete early in 1947.*

Sovfoto

Russian Style—*Model shows method used by Russian builders in erecting a 675-ft. high radio tower. The crane is mounted on a completed section of the tower, and rotated by the bull wheel to raise new section.*

complishments recently issued by the Ministry of Public Works.

Out of 2,603 railway bridges destroyed or severely damaged, 1,065 had been permanently rebuilt by Oct. 1, 1946, and most of the remainder had been replaced temporarily. Of 4,300 miles of railroad lines destroyed, 3,800 miles had been replaced, and railroad traffic was back to 91 percent of normal.

Over 4,000 of the 6,000 highway bridges destroyed or damaged have been replaced, and highways in general have been sufficiently repaired to permit pre-war speeds for automobiles. Although most French ports are not by any means fully restored, they are now able to handle traffic at near the pre-war rate, and navigation on inland waterways has been completely re-established.

Highways . . . .

Puerto Rico—The Puerto Rican Department of the Interior has drawn up a program calling for construction of more than $2,000,000 in highway improvements and by-passes around congested business districts. The largest projects on the list are by-passes around Rio Piedras, and around the City of Ponce.

India—The government of Sind Province has started work on a $40,000,000 roadbuilding program that calls for the construction of about 7,000 miles of new highways, to be built over the next ten years.

Mexico—One of Mexico's longest and best highways—the section of the "Cristobal Colon" highway between Mexico City and Oaxaca—was declared open to free traffic recently by President Camacho. The National Highways Commission announced that work on the 900-mile road started in 1925, and has cost about $40,000,000.

The Mexican government also announced start of work on a new transcontinental highway, to link Puerto Mexico on the Gulf Coast to Salina Cruz, on the Pacific, across the Isthmus of Tehauntepec (*ENR* April 11, vol. p. 518). Its total length will be 141 miles.

Personalities . . . .

Philippine Republic — Francis C. Turner, formerly assigned as consultant to the U. S. Army and later to the Canadian Army on maintenance of the Alaska Highway, recently was named to take charge of a new office of the Public Roads Administration here (*ENR* Nov. 7, vol. p. 612). The new office will supervise planning and construction of such roads as may be necessary for the defense of the island republic.

F. C. Turner

Puerto Rico—James R. Cook, formerly project engineer in charge of design of water and sewer systems for the City of Caracas, Venezuela, is now resident manager for Buck, Seifert and Jost, consulting sanitary engineers, with headquarters in San Juan, where he will be engaged in sewerage and waterworks improvements for the Insular government. Mr. Cook has been associated with work in Latin America for the last five years.

Ports and Harbors . . . .

India—Following closely on the recommendation of the government's Ports Technical Committee (*ENR* Nov. 7, vol. p. 612) that land be set aside for the expansion of the harbor of Madras, the Madras Port Trust has recommended a 10-year development program that would result in facilities for handling 5,000,000 tons of dry cargo annually, as compared with the present 1,750,000-ton capacity. The project would include construction of a new dock on the south side of the harbor that would be 3,125 ft. long.

At Bhaktal, Bombay, shipping interests planned to erect a $3,000,000 shipyard, to take advantage of proposed improvements that would make Bhaktal a deep-sea port.

Miscellany . . . .

Venezuela—A contract is about to be signed between the Frederick Snare Corp. and the General Motors Inter-America Corp. for the construction of an office building and showroom and a large warehouse and semi-assembly plant on the outskirts of Caracas. The cost will be about $400,000 and actual construction is expected to start early next year.

Photo by Wide World

***Prefab Town**—Behind the famous "White Cliffs" at Dover, England, this prefabricated town has been built to provide shelter for the hundreds of residents whose homes were destroyed during the war years. Many of the "prefabs" were built in the United States.*

Baseball Stadium for Caribbean Olympic Games

Capturing first attention this fall on the construction scene in Barranquilla, Colombia, are preparations for the fifth Central American and Caribbean Olympic Games, which are to be held in December. Largest of the projects under way is a stadium for baseball, the construction methods of which typify practice in tropical countries where effective use of brick and cement mortar predominates in structural work.

The stadium, with a seating capacity of 12,000, is in the shape of a hexagon. Each of the six sides is occupied by a grandstand, with open space between the stands at the ends for wide passageways. The length of the stands varies from 200 to 328 ft., thus permitting extra-wide passageways in certain corners of the field.

Built on earth fill

The stands are built on an earth fill that has a slope of 1 on 3, made with loamy sand obtained from leveling off the field. On top of this fill there is a 6-in. reinforced-concrete slab, which accommodates ten rows of seats.

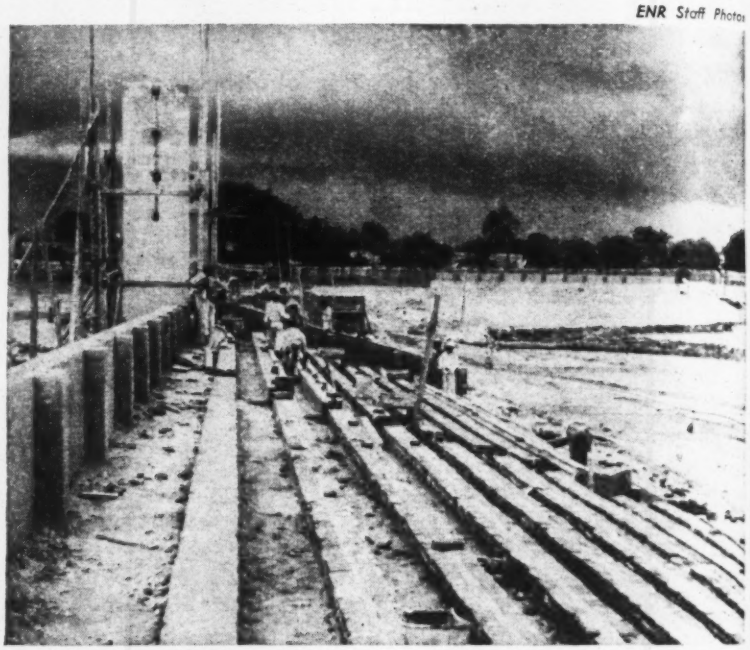
The back and end walls of the stands are made of brick covered with a ½-in. plaster coat of cement and sand mortar. The seat platforms, likewise formed of brick and covered with mortar, are 16 in. high in front and 12 in. wide at the top; front to front of adjacent rows of seats is 2.5 ft. The back wall of the stands is 12 ft. high. Overall width of the stands, including the 5 ft. brick platform at the toe, is 31 ft.

Because the job must be finished by the end of November and work was not started until August, operations are being carried out on a three-shift basis from 5 a. m. to 10 p. m. by the contractor, Compania Constructora de la Costa. Engineering design and supervision is under the direction of Efram Pereira.

Funds for the stadium, which is estimated to cost $135,000, are being supplied by the Atlantico state government of Colombia. Similar grandstands are being built at Barranquilla's outdoor pool (see cover) and also at an existing municipal stadium.

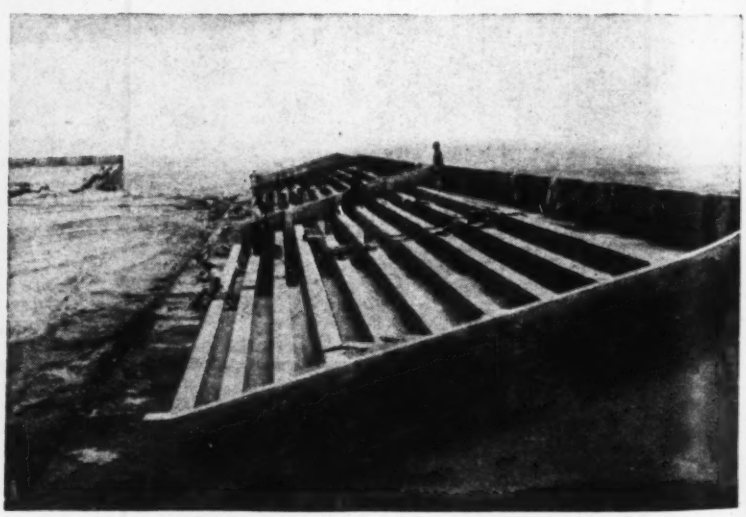
Participants in the games include representatives from Colombia, Venezuela, islands of the Caribbean and all Central American countries.

ENR Staff Photos



Lack of lumber is no problem to the stadium builders at Barranquilla, Colombia, whose brick and plastered cement mortar construction resembles the best in formed concrete. Grandstands form the sides of hexagonal-shaped baseball field being readied for the Caribbean area Olympic games, scheduled to be held here next month.

Cement is carried by the "obreros" in 5 gal. oil cans from the mixer to the stadium deck (see cover for another view).



G.E. to build atom power lab at Schenectady, N. Y.

Arrangements have been completed for the fourth in a projected nation-wide chain of nuclear physics research laboratories—a $20,000,000 institution to specialize in all phases of atomic power development. It will be built and operated for the government at Schenectady, N. Y., by the General Electric Co.

Called the Knolls Atomic Power Laboratory, it will be built around an atomic power pile—second such projected uranium pile ever built primarily for creating atomic energy for peaceful application. The first is at Oak Ridge, Tenn.

Knolls Laboratory will be another link in the government's peacetime research program in nuclear physics. It will be tied in with the work at Clinton Laboratory, operated at Oak Ridge by Monsanto Chemical Co. and at present specializing, in addition to the power plant project, in radio-active by-products of uranium fission; with the Argonne Laboratory, operated by the University of Chicago and other institutions, now working in biological effects of atomic fission and other basic research problems; and with the Brookhaven National Laboratory to be erected on Long Island and operated by a group of eastern colleges and universities. One or two more new laboratories of the Brookhaven and Knolls type remain to be set up. These will be located in the Southwest and Northwest.

The Knolls Laboratory will be built adjacent to General Electric's huge fundamental research laboratory now under construction. The two institutions will be jointly operated but will maintain separate identities and ownership.

Start building $11 million Georgia paperboard plant

Construction has been started on a new $11,000,000 plant of the Southern Paper-board Corp. at Port Wentworth, Ga., seven miles northwest of Savannah. The mill will produce an average of 450 tons per day of liner board and similar products.

The buildings will be of steel frame, with concrete foundations, floors, and grade beams, 8-in. brick curtain walls and corrosion-proof sash. They will have an area of about 260,000 sq. ft. Precast concrete slabs, overlaid with insulating board where required will form the roof. Corrugated asbestos siding will be used for some of the temporary walls, the sheds, and the canopy or open type construction developed in the design of the recovery, digester, and wash buildings. Foundations will consist of concrete footings on cast-in-place concrete piles, with spread footings being used for light loads.

About 3,000 piles, 3,500 tons of steel, 12,000 cu. yd. of concrete, and 70,000 sq. ft. of sash will be required for the buildings and foundations.

Process water for the mill will be furnished from the new filter plant to be built by the Savannah Industrial and Domestic Water Supply System, which is to furnish the mill with a minimum of 10 mgd.

J. E. Sirrine & Company, engineers of Greenville, designed the project, with the final plans under the direction of D. G. Moon, head of the pulp and paper mill division, and supervision of construction in charge of J. W. Cantrell, resident engineer.

General contract for the construction of the mill has been awarded to the Daniel Construction Company of Greenville, S. C., and James Rice has been named project manager.

$10,000,000 plant

Officials of the Corn Products Refining Co., announced recently in Kansas City that the company plans to erect a $10,000,000 plant on the Texas coast within the next three years to process milo maize, corn, etc.

The plant will be designed primarily to manufacture starch and dextrose sugar from milo maize, although it will produce several other by-products.

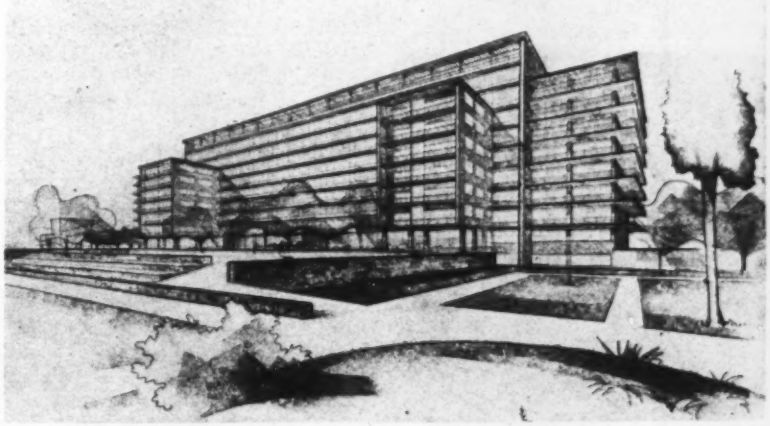
Wilkes-Barre VA hospital planned on new criteria

A 475-bed general medical and surgical hospital to be built at Wilkes-Barre, Pa., by the Corps of Engineers for the Veterans Administration will probably be the first of 76 VA hospitals to be constructed under a new program using new design criteria and designed by private architects-engineers.

The hospital will be an 11-story reinforced concrete structure. Solid rock, underlying the whole site, and the contours of a hill on which the structure is to be located, influenced Kelly & Gruzen, architect-engineers, and Fred N. Severud, consulting structural engineer, all of New York City, to fit the entire project to the terrain.

The main hospital building will be at the top of the hill and the natural grades and curves will provide entrances at several levels. The exterior finish will be of limestone and brick, and window frames of aluminum. Roof-decks to be used by the general patients will be covered with quarry tile, while similar decks for use by psychiatric patients will be protected by wire-mesh enclosures. Other roofs will be tar and gravel, and all will be insulated with 2-in. of glass fiber.

Under the new design criteria developed by the Veterans Administration (*ENR* Nov. 14, vol. p. 662), the hospital will in general be self-contained, with a central heating plant, adequate laundry facilities and sufficient storage space.



***Fits hilltop**—A striking example of the use of a hilly site to provide entrances from grade at different levels is the plan for a new veterans' hospital at Wilkes-Barre, Pa. Access is provided in the south elevation to the second floor, illustrated in the architect's rendering above. Recreational and occupational facilities and the cafeteria are located in this section, and patients, in fair weather, can dine on the terrace. The main entrance, providing access to the first floor lobby, is on the west of the structure, and ambulances enter the basement at grade from the north.*

Random Lines from an editor's notebook . . .

. . . . In which California housing experts confirm the need for public works to support huge-scale home-building

Public works service facilities must be extended immediately if we are to avoid serious interference with the 1947 housing program, according to a warning given to the American Public Works Association recently (*ENR* Oct. 3, vol. p. 415) by F. W. Herring, director of the Land & Public Services Branch, National Housing Agency.

To look into the matter further, *Engineering News-Record* recently interviewed authorities on this subject in southern California—one of the most critical housing areas in the United States. This report sums up the information gathered:

Although many unusual expedients have been required to keep public works services up with the housing demand, to date no serious delay in housing occupancy has been reported because of lack of such services. Spokesmen for the Los Angeles Department of Water and Power believe that, barring further strikes in such essential industries as steel, new water services can be provided as fast as they are needed. For services now being installed, water meters are usually not available, but the city meets this situation by charging a flat monthly rate and plans to install meters when they are available.

Water mains short

The primary shortage worrying department officials is that of cast-iron water main. By installing the new cast-iron pipe that does become available in places where it will do the most immediate good, housing needs in this area are being met at present. It is true that the department has many unfilled orders for new services, but the majority of these orders were placed months ahead of actual need, and as material shortages have delayed housing construction, the department has been able to keep up, particularly in new subdivisions.

One suburban town of less than 20,000 population reports a shortage of pipe for sewer connections. As veterans' priorities will obtain pipe in many cases where the city cannot, the city offers to make connections wherever the owner can supply the pipe.

Another critical shortage mentioned by Mr. Herring is that of adequate schools. School boards in southern California are trying to catch up with this need by use of Quonset huts and surplus army barracks as temporary school buildings. Permanent construction is being planned and placed under contract as rapidly as possible. Plans for work estimated at more than $1,500,000 are being submitted for approval monthly to the southern California branch of the State Division of Architecture.

Much of the new subdivision work in California is undertaken by firms which own the land and do all the development work from street paving to completed houses. Necessary public works installations in these cases, therefore, are a state, not a municipal problem.

Freeway work delayed

An interesting sidelight is that much of the freeway development ready for construction by the State Division of Highways in metropolitan areas is being held up because of housing. This work was planned during and before the war, and right-of-way was obtained at that time. In so doing, the state became one of the largest owners of rental property in southern California. Freeway work, therefore, must be scheduled in such a manner as to interfere with as few families as possible until the critical shortage is past. When vacancies occur in state owned property not presently needed the space is assigned almost at once to families required to move because of the other highway construction work in progress. . . . *L.L.W.*

HOW DO YOU MEASURE THIS POLLUTION?

Application was made recently to the Pasadena, Calif., board of city directors by the California Institute of Technology for permission to construct a cesspool on the Caltech campus for disposal of radio-active wastes.

The application was made by Wesley Hertenstein, Caltech building and grounds superintendent, who said that Caltech did not wish to discharge the radio-active wastes into its own sewer system. He did not disclose the type of research involved.

Many water and sewer improvements planned

Cities begin work to put extensive public works programs under construction as soon as possible.

Water and sewer projects, many of them in abeyance during the war, are now taking first place in the improvement plans of many U. S. municipalities. Typical of plans being made along these lines are the following:

Durham, N. C., has applied for an FWA advance of $164,000 to pay the cost of preparing plans for proposed improvements to the city's water and sewer systems to cost $5,158,850.

Included in the projects are plans to provide an additional 5,000,000 gal. to the capacity of the filter plant, a 2,000,000 gal. clear water storage basin, new mixing chamber, chemical house and laboratory at a cost of $957,500; a tank and force main, to cost $507,950; extension of the water distribution system because of obsolescence and to care for next 5-year expansion, to cost $1,127,100; 5,000,000 gal. additional capacity to the Northside sewage disposal plant to cost $1,041,300; Third Fork sewage treatment plant and intercepting outfalls, to cost $696,500; extension of capacity of New Hope sewage treatment plant and provision for sludge drying beds to cost $133,650.

DeKalb County, Ga., is about to embark on a 5-year plan of improvements to cost about $5,000,000, including extension of its water and sewage disposal systems. Voters have just approved a $2,600,000 bond issue for this purpose and in addition $750,000 in waterworks revenue certificates will be sold to provide funds for the system extension.

There are plans at Cheviot, Ohio, for a municipal water plant to cost $1,488,000. It would also supply Clevis, North Bend, Bridgetown, Green Township, and Monfort Heights.

Jackson, Tenn., has awarded Volz Contruction Co., of Ripley, a $514,675 contract for 13 miles of water lines and a 2,000,000-gal. water tank.

Rock Hill, S. C., has authorized engineers to proceed with plans on a proposed $300,000 addition to its water filtration plant.

Contracts have been awarded by the Illinois Water Service Co. for construction of a 1,000,000-gal. storage tank and development of at least three new wells west of Champaign, Manager Frank C. Amsbary reports. He says the new wells and tank will guarantee adequate water service throughout Champaign-Urbana and will more than make up the deficiency in supply which resulted in a shortage there last summer.

Controls eased, Reclamation Bureau awards contracts of $22 million

A considerable part of original appropriation is restored by federal action—Five projects to proceed

Contracts for construction, equipment and supplies totaling more than $22,000,000 have been awarded by the Bureau of Reclamation since the liberalization of presidential restrictions on reclamation construction, according to an announcement by Secretary of the Interior J. A. Krug.

Award of contracts on most federal construction was held up after an order issued Aug. 5 by the President requesting drastic reduction in construction programs. After review of the revised estimates presented by the various federal construction agencies, a considerable part of the original appropriation was restored to the agencies by federal action (*ENR*, Oct. 24, vol. p. 543).

Five projects offered

The contracts let since the liberalization order affect five Bureau projects, Mr. Krug said. Two major dams are involved, and the total includes nine contracts in all. Projects affected are the Columbia Basin in Washington, the Central Valley in California, the Colorado Big Thompson in Colorado, the Deschutes project in Oregon, and Tucumcari in New Mexico.

More than $16,000,000 of the total awarded will be spent on the Columbia Basin project. The largest single contract awarded was for $9,359,000 for Potholes Dam—one of the key irrigation features of this job. The dam will be built across Crab Creek, about 15 miles west of Warden, Wash., and will be about 19,000 ft. long with a maximum height of 200 ft. It will create a reservoir with a storage capacity of 615,000 acre-ft. The contract was awarded to a group of two corporations and a partnership, composed of C. F. Lytle Co., Sioux City, Iowa, Green Construction Co., Des Moines, Iowa, and Amis Construction Co., of Oklahoma. The work will require about four years to complete.

The second largest contract is for $3,977,000, and calls for construction of the first 12.3 miles of the East Low Canal, and for a check structure on the main canal. This work was awarded to the Utah Construction Co., of San Francisco, and Winston Brothers Co., of Los Angeles. The East Low Canal will ultimately be 130 miles long. A third contract for the Columbia Basin, amounting to $1,770,000, calls for construction of Long Lake Dam, about 2½ miles northeast of Stratford, Wash. The dam will be about 1,900 ft. long at the top and have a maximum height of 111 ft. This contract was awarded to J. A. Terteling & Sons, Inc., Boise, Idaho.

Other work involved

The two contracts affecting the Central Valley project call for the construction of 11.2 miles of the Delta-Mendota Canal, in the vicinity of Tracy, Calif., and the supply of 200,000 barrels of portland cement. Construction contract went to the Morrison-Knudsen Co., Inc., and M. H. Hasler, of Los Angeles, for a low bid of $3,025,000. The cement contract was awarded to the Calaveras Cement Co., of San Francisco, on a bid of $437,744.

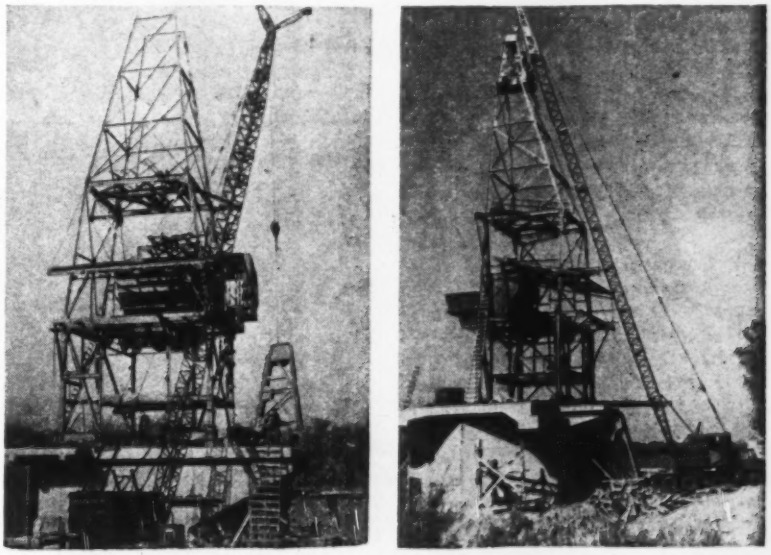
Of the remaining contracts, one, amounting to $934,948, calls for construction of 8.9 miles of the Hudson Canal and the Troutman, Smith and Harris laterals for the Tucumcari project in New Mexico. This contract went to J. A. Terteling & Sons, Inc.

Hard-rock tunnel record set on Big Thompson job

What is said to be a world's record for hard-rock tunnel driving was set recently when workmen on the Big Thompson project in northern Colorado in three 8-hour shifts drove 80 ft. through hard granite, Zimmie Lowdermilk of Lowdermilk Bros., contractors, reported. The men used 1,925 lbs. of dynamite in the 24-hour period.

With the driving of the record stretch, 6,340 ft. of the project have been completed, only 550 ft. of tunneling being left. Bureau of Reclamation engineers directing the job are William Fogarty, Donald Ellery and Joseph Church.

The Lowdermilk contract, totaling $1,864,822, covered excavation of the 1.3-mile Rams Horn tunnel and the 1.1-mile Prospect Mountain tunnel, to connect the eastern portal of the Alva B. Adams tunnel with the Marys Lake and Estes power plants. The Colorado-Big Thompson Project is designed to divert surplus waters from the western slope of the Rocky Mountains to water-deficient irrigation areas on the eastern slope. When completed, the project will provide a supplemental water supply for more than 600,000 acres of arable land, officials said.



***Tall job for short crane**—When an 85-ft. boom, plus a 15-ft. adjustable jib would not reach to set a 3-ton section on a coal unloading tower, a 30-ft. piece of boom was borrowed from another rig to make the 115 ft. length shown above. Another crane assisted in raising the long boom after the section was added. Then the mobile wheeled unit set the needed piece in less than two hours, working from a 30-ft. radius. The tower was designed by the Robins Belt Conveyor Co., fabricated by Vierling Steel Works and erected by Kenwood Erection Co. of Chicago for the Illinois Power Co., at Havana, Ill. Geo. A. Fuller Co. was general contractor.*

Plan $132 million N.Y. street solution

A ten point program envisaging the expenditure of up to $132,000,000 to relieve New York City's growing traffic congestion by construction of parking garages, elevated and express highways and installation of parking meters was embodied last week in an official proposal by the city's planning commission.

Included in the proposal was construction of a new Madison Square Garden—a mammoth $20,000,000 structure to house sports events, conventions, public meetings and the like, as well as to provide parking space for 2,000 cars.

Major points included in the report of the planning commission were:

Construction during 1947 of six eight-story parking garages with a combined capacity of nearly 10,000 cars, and the eventual construction of thirteen others; construction of an elevated express highway across Manhattan Island at 30th Street that would involve widening of the street by about 100 ft.; widening of Second Avenue from 30th to 59th streets to provide quick north-south communications between the major bridges over the East River; advancement of other highway work in Manhattan, including extension of the West Side elevated highway; and the installation of some 8,500 parking meters in the midtown area.

Also included were recommendations for changes in zoning laws to control location of bus terminals and to increase the city's authority over parking areas developed by private agencies.

The construction of a new Madison Garden was included in the planning commission report because the plan for financing the structure, as submitted by the officials of the private corporation operating the present sports arena and approved by the commission involved issuance of bonds by the Triboro Bridge and Tunnel Authority, which would then lease the building to the Madison Square Garden Corp. for operation.

The new structure, an architect's drawing of which is shown on this page, would be an immense building, extending two full city blocks from 58th to 60th St. (bridging over 59th St. in a block-long overpass with 25-ft. clearance) and almost a full city block in length, having dimensions of about 760 by 460 ft. The basement, street and first floors of the structure would be operated as a public parking garage, for use both by Garden patrons and the general public, while upper floors would accommodate an arena capable of seating 25,000 persons at one time, a convention hall 300 by 460 ft., offices, restaurants, and many other features.

Officials of the Garden corporation pointed out that by bridging an entire street, they could gain nearly 8,000 seats over the present seating capacity of the existing Madison Square Garden, which is compressed within one block on West 48th street. The existing structure will continue to be used after the new building is in operation.

Mindful of the city's tight financial situation, the planning commission suggested that some of the highway work proposed could be included in the federal-state highway system, and that the parking garages could be financed by the Triboro authority.

The commission's report was based on surveys made for it by Gano Dunn, W. Earle Andrews and Gilmore D. Clarke, engineering consultants.

Plan $30 million road to aid Richmond, Va.

A $30,000,000 express highway cutting through the heart of Virginia's capital city of Richmond was before city officials last week, as the result of surveys by city, state and federal engineering bodies looking towards solution of the city's growing traffic congestion.

The improvement would be financed in part by the federal government. The report was based on a survey made for the state highway department by the Chicago consulting firm of Consoer, Townsend and Associates, and envisages a 20-year program.

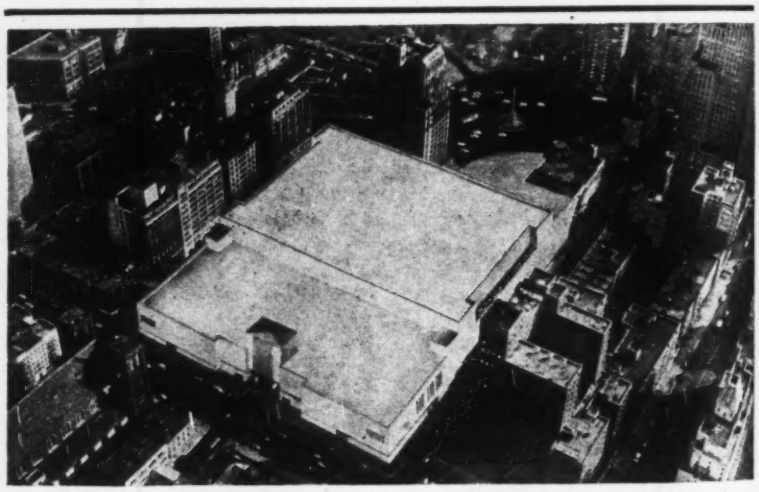
The Richmond section of the improvement, to cost an estimated $11,000,000, would be a six-lane divided highway with limited access, cutting through the heart of the city's business district, and then angling southwestward towards Petersburg.

N. Y. court dismisses suit protesting parkway tolls

The N. Y. State Court of Appeals dismissed a taxpayer's suit instituted in behalf of the Automobile Club of New York to invalidate the 1945 state law permitting Westchester County to collect 10-cent tolls from motor vehicles on the Hutchinson River and Saw Mill River Parkways.

Herbert C. Gerlach, Westchester County executive, said he believed the ruling by the Court of Appeals eliminated the last barrier to collecting the tolls but that a definite opinion would be withheld until County Attorney William A. Davidson is consulted.

If Westchester decides to start the toll collection the job of installing booths and other necessary equipment will require about three months, Mr. Gerlach said. He estimated that the county would obtain between $750,000 and $1,000,000 a year from the tolls.



New Sports Arena *—New York City officials are now considering a proposal for an immense new structure to house Madison Square Garden—the city's only major privately operated indoor sports arena. The new building, to be erected on a two-block area between 58th and 60th St. and between Columbus Circle (upper center) facing Central Park, and Columbus Ave., would be capable of seating 25,000 sports fans, and provide parking space for 2,000 cars. Structure would bridge 59th St.—a main traffic artery.*

Southeastern road officials fear loss of federal money as programs slow

Southeastern Association of State Highway Officials to ask Congress to extend expiration dates on highway funds

Concerned over the possible loss of federal funds under the Federal Aid Highway Act, because shortages of manpower, equipment and materials have prevented the states from getting programs under actual contract, highway officials of the southeastern states will ask Congress to extend terminal dates of expiration of availability of funds for at least twelve months after each of the 1947, 1948 and 1949 fiscal years.

Meeting in Birmingham Nov. 12-13 as the sixth annual convention of the Southeastern Association of State Highway Officials, the men adopted a resolution asking enactment of suitable legislation to meet the changed conditions so that planned federal-aid highway systems can be completed. A copy of the resolution is being sent to the Federal Works Agency and the Commissioner of Public Roads. The association will urge the American Association of State Highway Officials, meeting in Los Angeles next month, to adopt a similar resolution.

Road building slow

J. S. Bright, deputy commissioner of Public Roads Administration, said that the nation's roadbuilding program has not progressed as rapidly as had been expected a year ago, and that only about 40 percent of the program had been completed. He agreed that progress had been hindered by scarcity of contractors, shortages of materials, labor and equipment. He recommended that more contractors be encouraged to enter the highway construction field.

Federal-aid projects for which contracts have been awarded since Jan. 1, call for a total expenditure of about $436,000,000, Mr. Bright declared. He pointed out that this is about half of the sum needed to reconstruct the 27,000 miles of obsolete federal-aid highways throughout the country.

In order to speed highway construction, Mr. Bright urged that plans be prepared now so that contracts can be let as soon as conditions become more stable. This is especially true for bridge work.

Governor Chauncey Sparks of Alabama expressed apprehension over federal-aid programs, because "when the federal government gives, it follows up with regulation." He expressed confidence that the states could solve their own problems.

L. S. Tuttle, assistant to the commissioner, Public Roads Administration, told the association members that discussions with the larger fabricators revealed that it will take six to nine months to fill present steel orders. He said that fabricators will be glad to receive a reasonable tonnage of highway orders per month from now to next June and that they could conveniently handle about 40,000 tons per month.

Should state highway departments desire to utilize as an interim procedure the escalator type of contract on federal-aid work, the PRA will concur provided the arrangement is mutually satisfactory, Mr. Tuttle declared. He urged the highway commissioners to aid contractors to reduce risks, as one way of obtaining lower bids for work, even to the extent of purchasing and furnishing difficult-to-obtain materials.

Other speakers included C. S. Mullen, retiring president and N. W. Dougherty, dean of the engineering school at the University of Tennessee, and F. Elgin Bayless, chairman of the Florida Road Department.

Resolutions and officers

The association asked the AASHO to seek and obtain the assistance of the Public Roads Administration in the assembling of data regarding navigation clearances, with a view to recommending modifications in existing federal regulations governing bridge clearance requirements.

The group also adopted a resolution supporting an intensive road-safety program.

Officers elected for the coming year were: George T. McDonald, chairman of the Georgia State Highway Commission, president; F. E. Bayless, vice-president, and M. E. Cox, chief engineer, Georgia Highway Commission, secretary-treasurer.

Survey starts for Penn-Lincoln extension

Ray F. Smock, secretary of highways for Pennsylvania, on Nov. 6 announced that a contract has been signed with Gannett, Fleming, Corddry and Carpenter of Harrisburg to make surveys, plans and estimates for continuation of the Penn-Lincoln Parkway between "The Point" in Pittsburgh through Carnegie, a distance of five miles. The company is expected to begin the field work this fall.

The Penn-Lincoln Parkway will carry traffic now using U. S. Routes 22 and 30 through the city of Pittsburgh on a high speed thoroughfare, avoiding much of the congestion and delays now encountered on the present route. Local traffic also will be accommodated on completion of the new project.

The engineers will prepare plans for a new bridge replacing the existing structure at "The Point" in Pittsburgh. In addition a new interchange will be included in the project at the Banksville Circle. There will be a tunnel approximately 2,500 ft. in length between the river bridge and the Banksville Circle. An interchange will be provided at Carnegie.

The new highway will be a 4-lane divided thoroughfare. Highway department engineers say it will be impracticable to make an estimate of the cost, until plans and surveys are completed.

The highway department now has under construction the first two-mile link of the Penn-Lincoln Parkway east.

New Orleans traffic plan to cost $50 million

Needed improvement in the arterial highway system of New Orleans, La., will cost over $50,000,000, according to a recent report made by Robert H. Moses, New York City park commissioner, in co-operation with Andrews and Clark, New York consulting engineers.

This report was based on studies made at the request of the Louisiana Department of Highways. It is merely a diagnosis of the traffic and parking problems of New Orleans and its adjacent area. It is subject to any changes that may be found necessary to co-ordinate the arterial plan with local conditions. Some of the proposals are:

A Pontchartrain expressway from the Air-Line highway to the waterfront at a total estimated cost of $11,742,000.

A traffic circle and plaza at the proposed union railroad terminal, including widening of Saratoa Street from the circle to the municipal auditorium, estimated to cost $1,400,000.

A waterfront expressway from Calliope Street to Elysian Fields Avenue, to cost $11,223,000.

An Elysian Fields limited access boulevard and waterfront expressway to Gentilly Road, at a cost of $4,290,000.

As an additional river crossing the report recommends a bridge rather than a tunnel.

Also recommended is the construction of five multiple-level parking structures at a cost of $3,492,800.

MEN AND JOBS

Phillip Z. Kirpich is now senior designer with Ebasco Services, Inc., New York City. He served three years in the Army, with final rank of captain, Sanitary Corps. His last assignment was with the U. S. Military Government in Korea in charge of city engineering, sanitation and water supply at Pusan, the chief port. His prior connections were with Rust Engineering Co. and Morris Knowles, Inc., of Pittsburgh, Pa., as designing engineer; with the U. S. Army Engineers, New York and Baltimore districts, for six years as associate hydraulic engineer.

Clifford S. Fullerton, former Painesville, Ohio, city manager, has been named engineer for Willoughby, Ohio.

George C. Hayward, Cincinnati, Ohio, has been appointed city planner for Fort Wayne, Ind., effective Jan. 1, 1947, succeeding the late Robert B. Hanna. At present Mr. Hayward is principal planner for the master planning division, City Planning Commission, Cincinnati.

Frank R. Buechner, recently resigned city manager of Superior, Wis., has assumed a similar post in Hamilton, Ohio.

William S. Wagner, chief of the control division in the Seattle engineer district, U. S. Engineer Department, has been transferred to a similar position in Sausalito, Calif. He went to the Seattle office in 1941 from the Wyoming highway department.

James B. Urquhart, Jr., of Columbia, S. C., a civil engineer graduate of the University of South Carolina, has been appointed local expediter of the National Housing Agency. He will assist in providing homes for veterans in the southern half of South Carolina.

Col. Reading Wilkinson, U. S. Army, Corps of Engineers, who has served as U. S. district engineer in charge of the Nashville, Tenn., office for about three years, retired Nov. 1, and is succeeded by **Col. Howard V. Canan,** recently on duty in the office of the Chief of Engineers, Washington, D. C.

Henry Rockwood, regional hydrologic engineer at Fort Worth, Tex., has been promoted to be in charge of the weather bureau office in Pittsburgh, Pa. He is a graduate of the engineering school at Harvard and took postgraduate work at M.I.T.

Lorne S. Campbell has been appointed industrial engineer in the trade and industry branch of the Ontario department of planning and development. A graduate engineer of the University of Toronto, Mr. Campbell served with the Canadian forces in the first world war and occupied various positions in Ottawa during the recent war years.

Paul Rogers has opened an office as consulting structural engineer at 8 So. Dearborn St., Chicago 3, Ill. Until June, 1946, he was with the Roberts and Schaefer Co. as a designing engineer.

Leroy A. Ward, southern California structural engineer, has become office manager for Rowland H. Crawford, architect, Beverly Hills. Formerly he was with the firm of Ellis Wing Taylor and Edward Cray Taylor, Los Angeles.

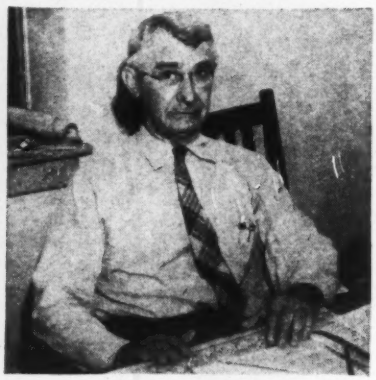
Everett E. Blackwell is resident engineer on the construction of a molding plant at Hammond, Ind., for the Keyes Fibre Co. of Waterville, Me. Mr. Blackwell is a civil engineer graduate of the University of Maine, 1927. He was formerly senior engineer of the bridge department of the Maine State Highway Commission.

Maj. W. Allen Stone of the U. S. Public Health Service, has been assigned as sanitary engineer consultant for the Veterans' Emergency Housing Program in a 9-state area centering in Chicago, Ill. He will work on matters pertaining to sewerage, water and other utility facilities. Major Stone previously served as a captain in the Sanitary Corps of the U. S. Army. Assigned as chief engineer in Peru he directed the

Luis Wannoni, chief sanitary engineer of the Venezuelan Ministry of Sanitation, was host at a picnic luncheon last month for delegates to the Inter-American Association of Sanitary Engineering at Caracas.

Pondering over a translation, C. I. Sterling Jr., chief engineer of the Institute of Inter-American Affairs, prepares to sway an audience at the conference with a speech in Spanish.

Happiest man at the Caracas conference of sanitary engineers was Lou Warrick, Wisconsin state sanitary engineer, who discovered unusual opportunities for motion picture color photography.



Joseph Wyse, resident engineer at Salem for the Virginia Department of Highways, is now supervising an extensive program of bituminous surfacing for improvement of secondary roads in his district.

building of hospitals, dispensaries, health centers and water and sewerage systems, working through the Institute of Inter-American Affairs. He is a civil engineer graduate of the University of Cincinnati.

Florencio Oyarzum Day, bridge engineer for the Chilean highway department, is coming to the United States for a visit of three months under the auspices of the Division of Transportation and Economics, Institute of Inter-American Affairs. He will study highway and bridge construction in this country.

Guillermo Guzman, and **Carlos Camposano,** Chilean highway engineers, are also here under the same auspices. They will observe the location, construction and maintenance of highways, principally low-cost roads in the southern states and California, involving pontoon bridges, gravel and crushed rock paving and stabilized sand and oil highways. Senor Guzman has held the posts of resident engineer and chief engineer on location, design and construction. Senor Camposano also has held many important posts in the Chilean highway department, including chief engineer of various highways, and is now inspecting engineer on location, design and construction.

Harry Sands, who was graduated as a civil engineer from Marquette University in 1925, has been appointed village engineer of Port Edwards, Wis. Mr. Sands was connected with the state highway commission for 14 years and served six years with the Federal Works Agency.

Capt. MacDonald Hunt has left his post as resident Army Engineer at Camp Reynolds, near Sharon, Pa., and will be discharged from the Army shortly. Merril Stein, engineer at Keystone Ordnance Works, near Meadville, Pa., will take charge of Camp Reynolds, spending two days weekly at the camp.

Pennsylvania's highway department has announced the appointment of two project engineers in District Six, with headquarters at Ardmore. They are **James P. McNichol,** of Bryn Mawr, and **J. Milton Coleman,** of Holicong.

County Engineer **John O. McWilliams** of Summit County, Ohio, is expected to resign effective Jan. 1, to devote his entire time to the Plastic Engineering Research Co., Akron.

R. P. Dowtin, resident engineer at Lillington, N. C., for the North Carolina Highway Commission, has been transferred to Lexington, N. C., where he is serving as resident engineer on the construction of a new section of US Route 29 and N. C. 70 between Lexington and Thomasville.

Resident Engineer **H. V. Bradley** of the North Carolina Highway Department has moved from Raleigh to Fuquay Springs, N. C., along with his party made up of **W. E. Hawkins, Jr., J. P. Brown, J. B. Harrison** and **J. E. Allen.**

Paul Minnear, formerly assistant highway engineer, bridge office, Illinois Division of Highways, started with the Illinois Division of Waterways, Springfield, as engineer, Oct. 8. With the U. S. Engineer Corps during the war, Minnear attained the rank of colonel, served in the South Pacific, the Philippines, and Japan, and returned to the United States April, 1946, and received his discharge Sept. 5.

Charles M. J. W. Kohler, who was in this country from 1923 to 1926, has opened a consulting engineer office in Amsterdam for work in Holland and abroad. After having completed the construction of the new graving dock at Cape Town (ENR, May 31, vol. p. 859) as engineer manager of the Graving Dock Construction Co., Mr. Kohler returned to Holland to help in the reconstruction of that country.

Mr. Kohler is a civil engineer graduate of the University of Delft. Among other jobs in this country he has worked for the Florida East Coast Railway Co., and has also done engineering work in the Dutch East Indies.

Present and future officers of the Associated General Contractors of America pose for a group photo at the organization's meeting at Philadelphia. Left to right are: William Muirhead, of Durham, N. C., treasurer; Dwight W. Winkelman, Syracuse, N. Y., nominated for vice-president; Forrest W. Parrott, Sioux City, Iowa, nominated for President; Warren S. Bellows, Houston, Texas, president, and H. E. Foreman, managing director.

Three civilian employees of the Seattle Engineer District recently received War Department commendations for their service during the past war from Col. Conrad P. Hardy (left) who left recently for duty in Europe. Receiving the award were: Mrs. Meryl Christian, executive assistant to the district engineer; John I. Noble, now assistant chief, Alaska Division, and C. Oscar Nelson, project engineer, Fort Lewis.

Need more protection on Santee-Cooper project

It is estimated that more than $3,000,000 will be required for additional slope protection for some 27 miles of dikes and dams at the Santee-Cooper hydro-electric and navigation project in South Carolina. Bids were received on Oct. 21 for the work.

Slope protection now is provided by a porous concrete covering originally thought capable of saving between $2,000,000 and $3,000,000 in cost of the project, but it has become necessary to provide additional protection in the form of either stone rip-rap of 6-inch solid concrete slabs.

R. M. Jeffries, general manager of the South Carolina public service authority, said the greatest savings will be effected if it is possible to move rock from the Columbia area down the Congaree River. Otherwise, rock will have to be brought in from other sources by water. It is believed uneconomical to move rock to the site by rail.

If rip-rap is used, the rock slabs will be put into position by crane. If it is found economical to use the concrete slab method, coffer dams will be built at points under repair.

Costs higher than those originally anticipated might be incurred if it is found necessary to add concrete slabs while the reservoirs are full. The porous concrete has proved too soft for the job required of it and frequently has been damaged by floating logs and other debris. In such instances, solid concrete reinforcement or temporary sand-bagging has been necessary to maintain protection.

Housing shortage at home blocks occupation armies

Difficulties in procuring lumber and other construction materials for housing because of the reluctance of producers and dealers to accept War Department orders is proving a "serious handicap" to the fulfillment of the Army's mission in occupied areas and overseas bases, the War Department said last week.

The official War Department announcement said that the department feels that the lack of materials for minimum construction needs is a "threat" to its enlistment program.

Lieut. Gen. Leroy Lutes, Director of Service, Supply and Procurement, said the department is now meeting less than half its overseas requirements for lumber and added that these requirements are now larger because of procurement delays over the last six months. General Lutes added that the situation is particularly bad in the Pacific, where existing saw mill machinery necessary to process local timber is inadequate and in a generally run-down condition.

"We just have not been able to get lumber, despite the fact that the Civilian Production Administration has carefully screened all our requirements and has in doing so, guaranteed their validity," General Lutes said.

Military board hearing for new Delaware bridge

A joint Army-Navy board last week held a 3-hour hearing at Wilmington, Del., to hear arguments for and against construction of a new bridge across the Delaware River near Wilmington (*ENR* Oct. 11, 1945, vol. p. 471).

Maj. Gen. Eugene Reybold (USA ret) formerly Chief of Engineers, and now engineering consultant to the Delaware road department, supervising planning of the new structure, appeared as chief proponent. He said the bridge would offer no obstruction to navigation, since its deck would be 175 ft. above mean high water, and the span over the main channel would be 2,000 ft. long.

Bids proved too high on Washington, D. C. bridge

Because the lowest one was about double the engineer's estimate, all bids for erection of the superstructure of a new bridge being built across the Anacostia River in Washington will be rejected, H. C. Whitehurst, director of highways for the District of Columbia, reports. The engineer's estimate was $1,100,000 for the superstructure, but when bids were opened a few days ago, the lowest was $2,123,354. This bid was submitted by the Phoenix Bridge Co., Phoenixville, Pa.

Known as the South Capitol St. Bridge, the crossing is to be of plate girder construction with the main crossing 854 ft. long, including a 386-ft. swing span at the main channel. The north approach will be 1,400 ft. long and on the south bank about 1,300 ft. of ramp will be required, including that needed for the semi-cloverleaf (*ENR* Oct. 18, 1945, vol. p. 484).

Foundation work for the new crossing is well advanced. This work is being done by the Dravo Corp., Pittsburgh, Pa., in accordance with a $2,487,590 contract.

Engineer mission to China to study Yellow River

At the request of the Chinese government a board of engineers consisting of Lieut. Gen. Eugene Reybold, (USA, retired) senior member, J. P. Growdon, and J. L. Savage will depart soon for China where they are to study Yellow River problems with a view to recommending future procedure for the control and utilization of the Yellow River. Their studies will include, in addition to other features, consideration of both flood control and power features of the river's development.

According to present plans, the board will spend a month or more in China studying the river and then return to this country to prepare their report. While in China they will meet with Chinese government engineers in Nanking and also take an extensive trip over the river basin area.

General Reybold, a former Corps of Engineers officer and Chief of Engineers from 1941 to 1945, has had long experience in flood control work. Since his retirement he has devoted his entire time as engineer consultant for the Delaware State Highway Department on the Delaware River crossing project (*ENR* Oct. 11, 1945, vol. p. 471). Mr. Growdon is chief engineer of the Aluminum Company of America and has been retained as a consultant on many flood control and dam construction problems by the U. S. Army. An Engineer officer in both World Wars he served as a colonel in the recent one. Mr. Savage for many years chief design engineer of the U. S. Bureau of Reclamation is an outstanding expert on dam design and construction. Since leaving the bureau a few years ago, he has acted as a consultant on dams and, in such capacity, has made numerous trips to many parts of the world, including China.

Alameda wants approach built to Bay bridge

Alameda, Calif., has asked that the California Toll Bridge Authority immediately start construction of an Alameda approach to the Oakland-San Francisco Bay bridge or re-instate Alameda-San Francisco ferry service.

City Manager Don C. McBillan, asserting that Alameda was "isolated" when the Bay bridge was opened, wrote C. H. Purcell, secretary of the authority, asking that the situation be studied. Mr. McBillan said that the Authority has power to construct such an approach chargeable to the Bay bridge.

Manufacturer pays Ohio for waste-killed fish

The Electric Auto-Lite Co. of Toledo, Ohio, has agreed to pay the state $18,000 for several hundred thousand fish killed by pollution in the Little Miami River at Kings Mills, and furnish 200,000 minnows to be put back into the stream. The settlement was reached after the attorney general's office had prepared to file suit in the Warren County Common Pleas Court to collect damages for the fish that were killed by industrial wastes dumped into the river at the firm's automobile lamp plant at Kings Mills.

Action to recover damages was started by the Conservation and Natural Resources Commission on the basis of a recent ruling by Attorney General Hugh S. Jenkins that the commission was obligated to protect wildlife from pollution menaces. The commission decided to act after Thomas H. Gallagher, pollution engineer, reported that chromic acids and cyanides dumped into the river had killed the fish.

New betatron X-rays 20-in. thick steel

A 20,000,000-volt betatron—a machine whose rays can penetrate 20 inches of steel in 20 minutes and detect flaws of almost microscopic dimensions—was demonstrated for the first time last week at the Picatinny Arsenal, Dover, N. J.

The machine will be used to X-ray shells and rocket warheads up to several feet in thickness. Manufactured by Allis-Chalmers Corp., the installation at Picatinny has three main components: A frequency tripling transformer supply 25 kw. at 5,000 volts, 180 cycles; a power rack containing the few necessary operating controls and 2,000 kva of capacitors; and the betatron magnet. The set-up and operation are said to be so simple that only a few hours are required to train an unskilled technician as an operator and radiographer.

Invented by D. W. Kerst, University of Illinois physicist, the betatron is in brief a two-winding transformer with a stream of electrons for a secondary winding. Instead of hundreds of thousands of turns of very small wire, a doughnut-shaped vacuum tube is used as the secondary, high voltage winding. Inside this tube, a stream of electrons is accelerated up to 99.97 percent of the speed of light, and diverted to collide with a traget to provide a rich supply of high-frequency X-rays.

Texas voters want road funds protected

Texas voters Nov. 5 approved a good roads amendment to the state constitution by a more than 3 to 1 majority. The amendment provides that all gasoline taxes and motor vehicle license fees shall be used exclusively for road purposes, with the exception of one-fourth the gasoline tax which is allocated to public education.

The road fund amendment had been sponsored by the Texas Good Roads Association. It was approved by legislature in 1944 by an overwhelming majority of both houses.

Texas has become the 19th state to give constitutional protection to road user funds. The success of the measure assures funds for a permanent long-range road program in Texas, the good roads group said.

N. C. also opposes diversion

A. H. Graham, chairman of the North Carolina State Highway Commission advocates an amendment to the state constitution to prohibit the diversion of highway funds to the general fund. The highway commission by resolution recently asked the legislature to repeal the diversion section of the revenue act because it "provides statutory authority for the diversion of funds from the highway fund to the general fund," and expressed itself as being "unalterably opposed in principle to the diversion of funds because there is no apparent immediate need for such diversion and because there is a pressing need, both immediate and prospective, for all funds available for highway purposes."

Kentucky truck fees must be spent on roads

Use of prorated state truck license fees in Kentucky for purposes other than building and maintaining county roads and bridges may be construed as misapplication of funds and makes county officials "liable on their bonds," Clem F. Kelly, assistant attorney general assigned to the highway department, said Oct. 25.

Under state law, truck-license taxes are divided each year, one half being retained by the state road fund and the other split equally among the 120 counties. The county shares must "augment county road funds." A recent constitutional amendment, Kelly pointed out, also requires all money collected from motor-vehicle licenses be used for road purposes. The law became effective this year.

NO PIPE DREAM

New York City's Department of Purchases is offering for sale—at sacrifice prices—one of the scarcest commodities in the present market, cast iron pipe and fittings.

The treasure was found in stock piles of the Bureau of Water Supply during a recent salvage drive. Inasmuch as the items are all of sizes and types no longer used by the bureau, it was decided to make them available to other water departments.

Some of the castings date back to 1898. All, however, are unused. Included are some 80 lengths of 14-in. bell and spigot pipe with tar lining, and some 700 ft. of 14-in. pipe with spigot ends only. In addition, 28 separate listings of 14-in. fittings and 23 items of various sizes from 24 to 48 in. are being disposed of.

Further information may be obtained from Leo P. Flood, salvage engineer, Department of Purchase, Municipal Building, New York City.

Los Angeles wins a delay in court sewer action

Mayor Fletcher Bowron and other members of the Los Angeles city government have won a delay and temporary freedom from contempt of court charges in the state's suit to force building of a new sewage disposal system.

Superior Judge Joseph W. Vickers recently sustained the city's demurrer that the affidavit to support the contempt charges was insufficient. (*ENR* Nov. 14, vol. p. 632) The judge ordered Attorney General Robert Kenny to prepare a new action with adequate charges. He dismissed the contempt suit without prejudice.

The contempt of court suit was based on the alleged failure of city officials to comply with a judgment rendered last Feb. 1 outlining procedure for building a disposal plant and outfall

U. of Minnesota asks $15 million for buildings

The University of Minnesota will ask the 1947 state legislature for a record-breaking appropriation of $33,428,000 for the two years beginning July 1, 1947. The figure includes $15,534,000 for construction of 39 buildings.

While the money is requested for the next biennium, the buildings would become a permanent part of the institution's facilities and thus represent a long-term, rather than a two-year, expenditure.

ENGINEERING SCHOOL NEWS

Harvard plans a "Science City" — New professor of highway engineering at Ohio State—War memorial for Virginia Polytechnic

Plans for a "science city" at Harvard University, Cambridge, Mass., coordinating the institution's scientific and technological resources, were revealed recently by President James B. Conant.

A central science center building, now in the blueprint stage, will become the hub of the "city," and will centralize the teaching, study and research facilities in various scientific departments now widely separated.

The science area will be within a radius of about one-quarter of a mile, including such laboratories, now in process of erection or completion, as the computation laboratory, with its mechanical "mathematician's brain" and the cyclotron house, with its new atom-smasher.

Funds are available for building the first section of the science center in the near future, and a program is being formulated to raise the necessary funds and endowment for the entire structure. The building will be about 500 feet long and four or five stories high, according to present plans.

The Wayne Engineering Research Institute, established at Wayne University, Detroit, Mich., during the war, has expanded to provide industry with additional opportunities for exploration of engineering problems. A full program of services is available in civil, aeronautical, chemical, electrical and mechanical engineering and in engineering drawing, shop and mechanics.

Virginia Polytechnic Institute, Blacksburg, Va., is planning a memorial to the more than 7,000 of its students and alumni who served in World War II. The shrine will have two levels, the lower to be a chapel and the upper a tomb flanked by two rows of pylons on which will be the names of the 302 men who gave their lives in the war. The institute now has 4,124 students enrolled, of whom 3,071 are veterans.

Among the 54 students graduated from the evening division of the college of engineering of New York University in October were two women—Miss Charlotte Northcote and Mrs. Renee R. Goldstein. There are fifteen other coeds in that college. Miss Northcote, 24, is office engineer for the Byron Jackson Co., New York. Mrs. Goldstein, 26, is with the Edo Aircraft Co.

E. H. Karrer has become professor of highway engineering at Ohio State University, Columbus, succeeding the late Prof. R. C. Sloane.

E. H. Karrer

Since graduation from the Ohio State University, department of civil engineering, in 1930, Professor Karrer has been continuously employed by the U. S. Public Roads Administration. In 1933 he was stationed in the division office in Fort Worth, Tex., and assigned to reviewing plans, analyzing designs and making field inspections of road and bridge construction projects in Arkansas, Louisiana, Oklahoma, and Texas.

In 1939 he was transferred to the Portland, Ore., division, where he worked on design and construction of bridges in national parks and forests. In 1940 he was called back to Washington, D. C., and during two years of the war acted as liaison representative for the Public Roads Administration with the materials conservation division of the War Production Board. During the last two years he has been division bridge engineer of Division 2 of Public Roads, covering Ohio, Pennsylvania, Delaware, Maryland, Virginia, West Virginia, and the District of Columbia.

Appointment of William Noble Lacey, to be dean of the graduate school at California Institute of Technology, was announced recently. Dr. Lacey's appointment followed the resignation from the deanship of Richard Chase Tolman, wartime vice-chairman of the National Defense Research Committee. Dr. Tolman, who similiarly served in both world wars, said his resignation was due to a desire to return to research work in physical chemistry, plus the press of new duties as technical advisor to Bernard Baruch, U. S. representative on the United Nations Atomic Energy Commission.

Registration at the institute for the current term is a record 1,372. The largest previous peacetime enrollment, in 1941, was 960. Of the 1,372 total, 581 are graduate students, 314 in engineering and 267 are studying science. Registration above the freshman level showed 372 in engineering and 240 in science. There are 179 freshmen.

At the University of Southern California another record for engineering enrollment was set with more than 1,000 students enrolled, of which some 300 are studying civil engineering.

***Rooftop Airstrips**—Rooftop landings of helicopters are possible on almost any normally-designed factory or office-building, engineers of the Bell Aircraft Corp. said recently after a series of tests at the corporation's Niagara Falls, N. Y., plant. The roof area chosen for tests was of typical factory construction, designed to carry loads of 30 lb. per square foot. To spread the load, a 32 x 24 ft. platform was built of lumber, and a helicopter repeatedly took off and landed from this staging.*

San Bruno, Calif., citizens sue to halt blasting

San Mateo, Calif., County supervisors, spurred by jittery citizens, have instructed the district attorney to file suit to halt the blasting operation near San Bruno which are providing fill for San Francisco's $20,000,000 airport development.

An order two weeks earlier to the Macco-Morrison-Knudson Construction companies to cut the quantity of powder used in the blasts from three and four tons to one ton had not relieved the discomfort of San Bruno residents, commissioners learned. A delegation complained that furniture still jumps about and dishes crash when the dynamite explodes. More than 100 claims for damages have been filed with the construction firm.

Luther Carr, Millbrae attorney, said that attempts to gauge the intensity of the blasts had failed because a seismograph installed for the purpose wouldn't stand still enough.

Delancy Smith, attorney for the contractors, said that blasting would continue until stopped by court order. The firm still has three months to go on a contract to provide 3,000,000 yards of fill and has just signed another contract to provide 2,500,000 yards for the new Bayshore speedway.

Baltimore 1946 building tops $125,000,000

Despite shortages and other difficulties, the building industry in Baltimore, Md., this year has completed or has in course of construction projects estimated to cost more than $125,000,000. The breakdown is approximately as follows:

For new industrial establishments, extensions and new machinery, $85,000,000.

For residential construction, $25,000,000.

For commercial projects, $15,000,000.

Heading the industrial expansions is the $45,000,000 improvement under way by the Bethlehem Steel Co. at Sparrows Point. Other companies spending a lot for improvements in the Baltimore area are: Western Electric Co., Westinghouse, Bendix, Locke Insulator, American Can, Crown Cork and Seal, Eastern Stainless Steel, Rustless Iron and Steel, Armco Drainage and Metal, General Refractories, and General Motors.

N. C. plan board advises works postponement

The North Carolina State Planning Board has adopted a resolution advising postponement of construction of public works projects not absolutely essential to health, sanitation and safety.

The board's managing director, Felix A. Grissette, reported that surveys indicate that a total of $300,000,000 in public works is needed by the state's municipalities, and that 79 local government units have applied for Federal Works Agency advance funds totaling $1,292,000 to prepare working plans for $40,000,000 worth of projects.

The board said the purpose of its recommendation was to avoid competition with private construction and also to provide a backlog of public works construction to ease possible unemployment later.

Plan new bridge approach for Memphis, Tenn.

A street project that may cost $1,500,000 is being planned at Memphis, Tenn., to speed traffic to the new bridge over the Mississippi River (*ENR* Nov. 7 vol. p. 610). Under consideration is an extension of Iowa Avenue from the new bridge to Lamar Avenue at East Street. It will be a 72-ft. street with 10-ft. sidewalks.

City Engineer W. B. Fowler recently conferred with C. W. Phillips, state highway commissioner, and W. N. Rees, state engineer in charge of plans and design. The result of the conference was an agreement on a project which will give automobile traffic from the east and south easy access to the new bridge and the nearby Harahan bridge without entering the downtown section.

Public health body ponders problems

Evidencing a marked diversity of interests, some 200 public health and sanitary engineers last week gathered in Cleveland, Ohio, to discuss their mutual problems and hear reports on progress in the many phases of public health engineering. The occasion was the seventy-fourth annual meeting of the American Public Health Association.

Of the several reports presented to the associations engineering section, perhaps the greatest interest was aroused by that of the committee on sewage disposal. This report, which is a factual compilation of stream pollution control measures in force or proposed by state and federal governments, concludes that any type of federal control "should preferably be along the lines of the Spence-Barkley bill" (*ENR* June 13, vol. p. 932) and recommends appointment of a committee to cooperate with other interested agencies in drafting and presenting to the next congress a water pollution control law.

Experiences with free residual chlorination of public water supplies in Michigan were outlined by R. J. Faust, chief of the water supply division, Michigan Department of Health, who pointed out that this method is no longer a treatment to be used in emergencies and that it is adaptable to most treatment plants. Advantages to be gained, according to Mr. Faust, are superior bactericidal action, improved filter runs, taste and odor reduction, color removal, and elimination of aftergrowths in distribution systems. Control tests are simple and readily understood. And, in addition, the treatment has the ability to inactivate poliomyelitis virus in water supplies. Costs, he said, are comparable with older treatment methods.

Other papers of interest to sanitary engineers included: "A Study of an Additional Method of Water Analysis" by E. J. Cope, R. H. Chapin and A. T. Dempster, of the Detroit health department's Bureau of Laboratories; and "A Comparative Study of Chlorine and Bromine for Swimming Pool Disinfection," by T. L. Van der Velde, assistant sanitary engineer, Michigan Department of Health, in cooperation with W. L. Mallman and A. V. Moore, both of Michigan State College. In a paper on "Field Training Programs," E. S. Tisdale, senior sanitary engineer, U. S. Public Health Service, explained the program wherein the service proposes to establish training programs for graduate engineers studying communicable diseases.

Lewis Dodson, director of public health practices at the national sanitation foundation, University of Michigan, pointed out in a paper on the sanitary-fill method of waste disposal that this method is as applicable to towns of 3,000 to 5,000 as to larger places.

New officers of the engineering section are W. Scott Johnson, chairman; John M. Hepler, vice chairman, and George O. Pierce, secretary.

OBITUARY

Frank A. Hitchcock, 60, of the civil engineering department of George Washington University, Washington, D. C., died at Vienna, Va., Nov. 10. Professor Hitchcock, who held engineering degrees from the University of Wisconsin and Christian Brothers' College, St. Louis, Mo., joined the George Washington University staff as part-time instructor in 1920. He became full-time professor and head of the civil engineering department in 1926.

Lincoln VanGilder, 86, engineer and superintendent of the municipal water department, Atlantic City, N. J., died Nov. 15. He went to Atlantic City in 1906 to take charge of the water department and continued there until last June 1. He was graduated from the University of Pennsylvania as a civil engineer. He was the oldest water superintendent in the state. He was also an inventor in the water supply field. In 1939 he was presented with the Fuller Award of the American Water Works Association. He was a consultant and associate designer in the construction of the Atlantic City drainage canal.

Isaac Hausman, 57, a graduate of the Massachusetts Institute of Technology, and president of the Hausman Steel Co., Toledo, Ohio, died Oct. 30.

Milton H. McCoy, 62, Crete, Ill., consulting engineer, died Oct. 26 in Ann Arbor, Mich.

Ernest R. Kimball, 66, retired civil engineer, died Nov. 7 at Franklin, N. H. He was a graduate of Harvard University and served as a civil engineer in Athol and Framingham, Mass., Derry, N. H., San Francisco, Panama, and Seattle. Later he was with the Boston Elevated Railway Co.

Walter S. Fitch, 68, a former construction engineer, died Nov. 7 in Wellesley, Mass. He was graduated from M.I.T.

L. Paul Tomlinson, 51, civil engineer, died Oct. 30 in Ellettsville, Ind. He had been employed in both Crane and Indianapolis, Ind.

Howard W. Mayers, 51, a civil engineer, of Needham, Mass., died on Nov. 6 in Boston. He was graduated from the University of Maine in 1916.

T. H. Milford, 44, chief engineer and director of the bureau of sanitation, Alabama State Health Department, was killed in an automobile accident at Montgomery, Ala., on Nov. 2. He was graduated with the degree of B.S. in civil engineering from Texas A. & M. College in 1926, after which he was employed by the Alabama State Health Department as assistant sanitary engineer. In 1932 Mr. Milford attended Harvard University and received the degree of M.S. in sanitary engineering.

Alexander Lafleche, 86, general contractor of Cornwall, Ont., died Nov. 7. Mr. Lafleche a native of Potsdam, N. Y., went to Cornwall 63 years ago and started contracting work then.

George T. Southgate, 60, prominent in engineering circles, died at Pittsburgh, Pa., Nov. 8. He was son of W. W. Southgate, for years city engineer of Nashville, Tenn., and a brother of Donald Southgate, also a civil engineer. At time of his death, Mr. Southgate was chief engineer of the Vanadium Corporation of America.

Richard D. Rickard, 90, who retired in 1930 as vice-president, secretary and treasurer of the New York, Ontario & Western Railway, died in Seaside Park, N. J., Nov. 11. Mr. Rickard, who was associated with the railroad for more than fifty years, studied civil engineering at the Rensselaer Polytechnic Institute, Troy, N. Y.

Thompson R. Atkinson, 78, who retired 11 years ago after 27 years as superintendent of steel construction for several firms, including the American Bridge Co. and W. W. Lindsay Co., died at Philadelphia, Pa., recently.

O. P. West, 58, civil engineer of Albany, Ore., died there Nov. 1. In recent years, he had been with the Mountain States Power Co.

MAJOR MEETINGS

Highway Research Board, 26th annual meeting, National Research Auditorium, Washington, D. C., Dec. 5-8.

National Society of Professional Engineers, annual meeting, Atlanta-Biltmore Hotel, Atlanta, Ga., Dec. 7.

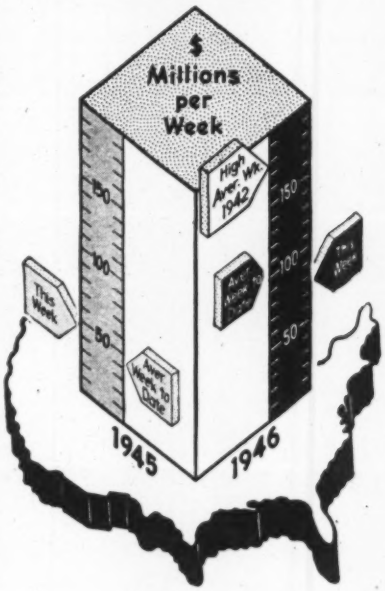
American Association of State Highway Officials, annual meeting, Biltmore Hotel, Los Angeles, Calif., Dec. 17-20.

American Society of Civil Engineers, annual meeting, Commodore Hotel, New York, N. Y., Jan. 15-18.

Associated General Contractors, annual convention, Stevens Hotel, Chicago, Ill., Jan. 27-30.

National Crushed Stone Association, annual meeting, Edgewater Beach Hotel, Chicago, Ill., Jan. 27-29.

CONSTRUCTION ACTIVITY



As Reported this week to . . .
Engineering News-Record

CONTRACT VOLUME

Continental U. S. Only (Thousands of Dollars)

	Week of Nov. 21 1946	Cumulative 1946 (47 wks.)	Cumulative 1945 (47 wks.)
Federal	$16,827	$609,152	$722,038
State & Mun.	27,108	1,315,188	343,169
Total Public.	$43,935	$1,924,340	$1,065,207
Total Private	33,867	2,890,529	926,570
U. S. Total..	$77,802	$4,814,869	$1,991,777

WHERE CONSTRUCTION ACTIVITY ORIGINATED THIS WEEK

Dollar Volume (Thousands)

Type of Work	This Week	Cumulative 1946 (47wks.)	Cumulative 1945 (47 wks.)
Waterworks	$2,082	$100,731	$52,755
Sewerage	3,961	105,210	30,659
Bridges	1,826	120,878	39,773
Highways	11,975	721,469	205,506
Earthwork, Waterways	12,968	343,198	51,200
Buildings, Public	8,984	383,908	445,545
Industrial	12,213	961,637	521,018
Commercial	20,838	1,746,000	294,663
Unclassified	2,955	331,838	350,658

NOTE: Minimum size projects included are: Waterworks and waterway projects, $22,500; other public works, $40,000; industrial buildings, $55,000; other buildings, $205,000.

NEW PRODUCTIVE CAPITAL

	Cumulative 1946 (47 wks.)	Cumulative 1945 (47 wks.)
NON FEDERAL	$1,343,091	$690,449
Corporate Securities	393,920	179,830
State and Municipal	724,171	347,019
RFC Loans	.....	24,600
REA Loans	.....	60,000
Fed. Aid Highway..	225,000	79,000
FEDERAL	1,672,982	1,049,898
Total Capital	$3,016,073	$1,740,347

ENR INDEX NUMBERS

Index Base=100		1913	1926
Construction Cost..	Nov. '46	362.47	174.24
Building Cost.....	Nov. '46	273.71	147.96
Volume	Oct. '46	233	102

CONSTRUCTION REPORTS

Bids Asked — Low Bidders — Contracts Awarded

Compiled by Business News Department—Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

ELSIE EAVES, Manager *J. A. MAHONEY, Reports* *J. V. McEWEN, M. R. ROESSLER, Statistics*

WATER SUPPLY

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked About December 1

N. C., Charlotte—City, H. H. Baxter, mayor, City Hall, water filtration plant. $450,000. J. B. Marshall, 2151 McClintock Rd., engr. CD 5/1.

Bids Asked December 9

Ill., Meredosia—City, City Hall, WW supply imprvs. Approx. $65,000. Bids 9/30 rejected. Cealer & Stapleton, 313 W. State St., Jacksonville, engrs. CD 9/13—ENR 9/19.

Utah, Price—B. Ward, city recdr., City Hall, 2 welded steel water storage reservoirs. Plans deposit $15. Power Eng. Co., P. O. Box 1777, Salt Lake City, consult. engr. CD 11/16/45—ENR 11/29/45.

Ont., Lakefield—Village, H. Hill, clk., installing WW and sewerage sys., also one 125,000 gal. steel water tank. Approx. $150,000. G. G. Reid, 264 Avenue Rd., Toronto, engr.

Bids Asked December 16

Fla., Gainesville—City, water filtration and softening plant. $400,000. Plans deposit $50. Extended date. Robert & Co., Bona Allen Bldg., Atlanta, Ga., engrs. CD 9/3—ENR 9/5.

SOON LETS CONTRACT

Tex., Houston—C. N. Brinkley & Assoc., c/o Galena Park, Houston, soon lets contract c.i. water lines. $40,000.

LOW BIDDERS

Calif., Burbank—City, City Hall, Nov. 12, water distr. reservoir, from Wonderly Constr. Co., 2694 Lime Ave., Long Beach. **$671,272.** CD 9/17—ENR 9/19.

Ga., Griffin—City, rejected bids Nov. 12, 1 m. g. rein.-con. clear well. Will readvertise. CD 10/9—ENR 10/17.

N. C., Wilmington—City, Oct. 31, exten. watermains and sanitary sewers, from A. H. Guion & Co., Wilkinson Blvd., Charlotte. **$54,417.** CD 7/10—ENR 7/25.

Ore., Oak Grove—Oak Lodge Water Dist., Oak Grove, Nov. 4, installing 74,000 ft. 6- to 16-in. pipe, from Rushlight Automatic Sprinkler Co., 55 N. E. Farragut St., Portland. **$113,399.** CD 10/23.

Ore., Portland—City, City Hall, Nov. 6, 500,000 gal. elevated steel water tank in Sellwood Park, from Pittsburgh-DesMoines Steel Co., 1015 Tuttle St., Des Moines, Ia. **$59,870.** CD 10/16—ENR 10/24.

CONTRACTS AWARDED

Conn., Danbury—City, Municipal Offices, City Hall, 12 and 16 in. watermains Shelter Rock Rd. Main, South and Triangle Sts. to Bernard J. Dolan, 207 Greenwood Ave., Bethel. Est. **$22,500.** S. A. Rapp, City Hall, engr. CD 8/19—ENR 8/22.

†**N. M., Albuquerque**—U. S. Eng., Commercial Bldg., water lines and brick, concrete pump house, at Sandia Base, to Robert E. McKee, 1900 Texas St., El Paso, Tex. **$91,000.**

N. C., Charlotte—City, motor driven pump, to DeLaval Co. Steam Turbine Co., 853 Nottingham Way, Trenton, N. J. **$36,535.** Bids 10/9. J. N. Pease & Co., Inc., Johnson Bldg., engr. CD 5/1—ENR 3/7.

Pa., Phila.—Charles Lenning & Co., 222 Washington Sq., design and construction water pump. station, to Stone & Webster Engr. Corp., 49 Federal St., Boston, Mass. Est. **$28,105.**

Pa., Phila—Phila. Dpt. P. Wks., City Hall Annex, WW 1-314, Queen Lane Pumping Station, pump fdns. and piping connections for station, to James N. Driscoll, 27 E. Durham St. **$27,700.** Awarded 11/6. Elbert J. Taylor, water bureau chief.

Tex., San Antonio—J. A. Lewis, Travis Bldg., c.i. water lines, own forces. **$36,000.**

Wash., Eatonville—Town, Town Hall, 300,000 gal. concrete reservoir, 350 g.p.m. concrete water filter pump, 1,770 ft. water pipeline and 1,320 ft. concrete sewer pipe drain line, to American Pile Driving Co., Everett. **$64,127.** Est. $85,000. Bids 11/1. CD 10/16—ENR 10/24.

★**Wash., Olympia**—City, City Hall, water supply line from McAllister Springs, to American Pipe & Constr. Co., 518 N. E. Columbia Blvd., Portland, Ore. **$805,133;** pumphouse reservoir and valve house, to Scheumann & Johnson, Lloyd Bldg., Seattle, Zone 1. **$496,685.** Bids 10/29. CD 11/4—ENR 11/7, under LB.

Ont., Trenton — Dpt. Reconstr. & Supply, Ottawa, watermain at R.C.A.F. station, to H. J. McFarland Constr. Co. Ltd., Picton. Approx. **$30,800.**

SEWERS, WASTE DISPOSAL

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked November 26

N. Y., Greece—Town Bd., Town Hall, imprv. sewerage sys. of Sanitary Sewer Dist. 1. Plans deposit $10. Francis H. Carroll, 407 Terminal Bldg., Rochester, civil engr.; adv. ENR 11/21.

N. Y., Kew Gardens—President Queens Boro, Boro Hall, 120-55 Queens Blvd., Zone 15, storm sewer Avery Ave., along easterly boundry Flushing Meadow Park to 131 St. to Avery Ave. to Lawrence St.; storm and sanitary trunk sewers in park land along Creedmoor branch L.I.R.R. from Lawrence St. to Utopia Pkwy.; Main St. northerly to Crommelin Ave. and Main St. and storm sewer southerly from storm trunk sewer to Main St. and Peck Ave.; storm sewer from storm trunk sewer and at right angles to same at Byrd St. southerly to 56 Ave. and 142 St.; 146 St. from storm trunk sewer southerly to 56 Rd.; 150 St. from storm trunk sewer to North Hempstead Turnpike; sanitary sewer southerly from sanitary trunk sewer to Peck Ave., storm and sanitary sewers northerly to Quince Ave. and Kissena Blvd.; sanitary sewer in 153 St.; storm sewer Kissena and Parsons Blvds., Fresh Meadow Lane; storm and sanitary sewers in park land from storm and sanitary trunk sewers northerly to Dahlia and Crommelin Aves.; sanitary sewer in 164 St.; storm sewer in park land from storm trunk sewer northerly to 168 St. and Underhill Ave., all foregoing 3rd Ward; sanitary sewer, appurtenances in Raywick St.; Anderson Rd., Sidway Pl.; 64 and Braddock Aves.; temporary sewer 76 Ave., 3rd Ward; sanitary sewer 168 Pl., 4th Ward; combined sewer, appurtenances in 137 and 133 Aves., Francis Lewis Blvd., and Laurelton Pkwy., 4th Ward; storm sewer (3rd barrel) Flushing Meadow Park, 3rd Ward; receiving basins in northwest and southwest corners Burns St. and Yellowstone Blvd., Clyde St. and Yellowstone Blvd., 2nd Ward; combined sewer 164 St., 3rd Ward; sanitary sewer 154, 172 and 173 Sts., 4th Ward; CD 8/25/44, 8/30/45—ENR 9/7/44, 9/20/45, under Jamaica and Flushing.

Bids Asked November 27

N. C., Wallace—Town, J. A. Harrell, mayor, Sect. A sanitary sewer extens.; Sect. B water distr. mains, Sect. C, bituminous street surfacing; Sect. D water pump, deep well turbine pump and accessories. Plans deposit $15. CD 6/29/44—ENR 7/13/44, under Streets and Roads.

SOON LETS CONTRACT

Tex., Houston—C. N. Brinkley & Assoc., c/o Galena Park, Houston, soon lets contract sanitary sewers. $50,000.

LOW BIDDERS

Ala., Auburn—City, c/o T. M. Lower, engr., Auburn, Nov. 5, storm and sanitary sewers, from Sockwell & Co., 156 Rogers St., N.E., Atlanta, Ga. **$116,000.** CD 10/29.

Ia., Carter Lake (Omaha, Neb. P.O.)—City, rejected bids Nov. 6, sanitary sewers. **$83,563.** Will readvertise. Henningson Eng. Co., 626 Standard Oil Bldg., Omaha, Neb., engr. CD 10/29—ENR 10/31.

Mich., Lansing—State Hy. Dpt., Lansing, Nov. 7, re-routing Fourth Ave. sewer in Lafayette Blvd. from Fourth to Third Aves., Proj. U. 1-82-127-C-1, Detroit, Wayne Co., from Gargaro Co., Inc., 40 E. 7 Mile Rd., Detroit. **$56,121.** CD 10/30.

Tex., Austin—City, Nov. 5, sanitary sewers adjacent to Colorado River, Contr. B, alt. b, from J. Bland Constr. Co., Box 1158, **$165,464** ***north of 49 St. between Burnet Rd. and Ave. F., Contr. C, from Karl B. Wagner, 4200 Bradwood Rd. **$206,812*****storm sewers, W. 8, 46 and 47 Sts., Sharon Lane, Monroe, Newton, Milton Aves., etc., from Collins Constr. Co., 1701 W. 5 St. **$80,221.**

Tex., Dallas—City, storm sewers in Jim Town Fork, etc., from P. C. Sorenson, Southland Life Bldg. **$74,107.**

★**Tex., San Antonio**—Bexar Metropolitan Water Dist., Courthouse, project abandoned sanitary sewer mains (to districts without mains) **$1,200,000;** drainage, **$100,000;** sanitary sewer laterals, **$1,000,00;** repairing sanitary sewer mains, **$819,000;** storm sewers, **$2,000,000;** imprv., expanding sewage disposal plant, **$1,000,000;** new sanitary sewer mains, **$600,000.** H. R. F. Helland, Frost Bldg., San Antonio, consult. engr. CD 9/13—ENR 10/3.

Va., Portsmouth—City, Nov. 12, Camden Ave. pump. station, from A. G. Pinkston Co. 1805 County St. **$106,769.** CD 10/23—ENR 10/31.

CONTRACTS AWARDED

Ia., Storm Lake—City, W. H. Kaufman, clk., outlet sewers, sewage plant, to Omaha Dredge & Dock Co., 805 Douglas St., Omaha, Neb. **$85,287.** Bids 10/25, awarded 11/4.

†**N. M., Albuquerque**—U. S. Eng., Commercial Bldg., sanitary sewers, Sandia Base, to Robert E. McKee, 1900 Texas St., El Paso, Tex. **$70,000.**

Pa., Phila.—Dpt. P. Wks., City Hall annex, sewers various locations, A-1, A-8, to Pontarelli & Feraco, 4229 Castor Ave. **$45,371.** Thomas Buckley, dir. and ch. engr.

Pa., Phila.—Dpt. P. Wks., City Hall Annex, sewers various locations, Schedules A-6, B-4, B-6, to D. Sabotini, 2315 Mifflin St. **$43,577.** Thomas Buckley, dir. and ch. engr.

Tex., Austin—City, G. Morgan, mgr., storm sewers, W. 8, Monroe, Newton, Milton, Eva and 25 Sts., Rosedale Ave., Sharon Lane, Breeze Terrace at Edgewood Ave., etc., to Collins Constr. Co., 1701 N. 5 St. **$80,221*****sanitary sewers, Contr. B, to Joe Bland Constr. Co., Box 1158, **$165,464*****Contr. C, to Carl B. Wagner, 4200 Bradwood Rd. **$206,812.** Grand total $452,497. Bids 11/5, awarded 11/7. CD 10/25—ENR 10/31.

Wis., Wauwatosa—Town, 7701 Menomonee River Dr., Zone 13, vitr. clay sanitary sewers in various streets, to Otto P. Seefeld, 5101 W. State St., Milwaukee, Zone 8. **$62,653.** Bids 11/4. CD 10/29.

Ont., Ottawa—Municipality, sewers in Gladstone Ave., Breezhill St. and Bayswater Ave., day labor. **$44,300.** F. C. Asquith, Administrative Offices, comr. wks. and engr.

PROJECTS COVERED

Projects—By Size

Construction projects here reported cover the United States and Canada, are of these minimum sizes or larger: water supply, earthwork, waterworks $22,500; other public works $40,000; industrial buildings $55,000; other buildings $205,000.

Classes of Construction

(Name in order of Listing)

Water Supply	Latin America
Sewers, Waste Disposal	Public Buildings
Bridges	Commercial Buildings
Streets & Roads	Industrial Buildings
Earthwork, McKee, Waterways	Unclassified

Stages Reported

PROPOSED WORK: Including appointment of engineers or architects.

BIDS ASKED (new announcements only). For full calendar, see also preceding issues of ENR.;

LOW BIDDERS: On jobs below $500,000 value all low bidder news will be the final reports published on the projects involved except where award is not made to the low bidder. In this case, a supplementary contract award report will be published.

CONTRACTS AWARDED: Except awards to low bidders previously reported in low bidder stage.

Dates shown are of issue in which last previous report was published.

Symbols and Abbreviations Include:

†	Federal Government
★	Project of $1,000,000 or over.
ENR	Engineering News-Record
CD	Engineering News-Record Construction Daily

BRIDGES

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked November 26

N. C., High Point—City, Roy S. Braden, mgr., overhead bridge, approaches with certain railway track changes in city at and adjacent to intersections Perry St. with main track of Southern Ry. Co. Plans deposit $5. Frank T. Miller, Greensboro, con. engr.

Bids Asked November 27

★**New York**—Henry A. Cohen, dir. Bureau Contrs. & Accounts, The Alfred E. Smith State Office Bldg., Albany, 40 ft. I-beam span, 25 ft. and 21 ft. concrete slab span bridge 9.28 mi. Livingston Co. $1,047,000. Plans deposit $20, adv. ENR 11/21.

Bids Asked December 2

Ill., Chicago—City, Dpt. P. Wks., City Hall, reconstructing Roosevelt Rd. Viaduct. Plans deposit $25.

Bids Asked December 3

Florida—State Rd. Dpt., Tallahassee, two bridges, each thirty-four 15 ft. spans, concrete slabs on steel pile bents, approaches of lime rock base with bituminous retread surface, total length 3,000 ft., on 79 St. Causeway between Miami and Miami Beach, S.P. 8708-103, Rd. 828, Dade Co.; widening drainage structures, consisting of 13 culverts and 4 bridges, Rd. 5, between Duval Co. Line and Georgia State Line, S.P. 7402-106, Nassau Co. H. P. Coloney, state hy. engr.

Missouri — State Hy. Dpt., Jefferson City, rein.-con. culvert type slab spans, two 10 ft. and two 12 ft. over Dry Branch, road from Gerster northeast to Hickory Co. line, Route ST Proj. S-354 (1) St. Clair Co.; two 12 ft. over Branch of Mill Creek and four 10 ft. over Mill Creek, road from Oxley to Naylor, Route SN Proj. S-709 (4) Ripley Co.; two 10 ft. over stream and three 12 ft. over Twelve Mile Creek, road from Fredericktown South, Route 67 Proj. FA 101-B (4), two 8 ft. over stream, road from Fredericktown South, Route 67 Proj. FA 101-B (5), two 12 ft. over Mitchell Creek, road from Route 67 west to French mills, Route ST Proj. S-728 (2) Sect., B, all foregoing Madison Co.; three 12 ft. over Ball Creek, two 10 ft. over Fritz Creek, and two 10 ft. over Tanyard Branch, road from DeSoto north and south, Route 21 TR, Proj. F 375 (5) Sect. A, two 10 ft. over Whitehead Creek road from DeSoto North and South, Route 21 TR, Proj. F 375 (5) Sect. B, all foregoing Jefferson Co.; three 10 ft. over stream, road from Route 34 to Cascade, Route SM. Proj. S-120 (2) Wayne Co.; five 10 ft. over Four Mile Creek, road from Route SK south to Long Lane, Route SP Proj. S-202 (2) Dallas Co.; two 12 ft. over Brush Creek, road from Weaubleau south to Route SE Proj. FAS 178 (2), Polk Co. line, Hickory Co.; two 12 ft. over Mile Dam Creek, road from Ironton to Reynolds, Route SW Proj. S-329 (1) Iron Co.; three 12 over Windsell Creek, road from Sullivan northeast to St. Clair, Route 66 FI 258 (3) Sect. A Franklin Co.; two 12 ft. over Borman Branch, road from Route SD east to Saline City, Route SP Proj. S-265 (1) Saline So.; two 10 ft. over stream, road from Route SM south to Hagers Grove, Route SC Proj. S-126 (1), Shelby Co.; two 10 ft. on road from Moscow Mills to Old Monroe, Route SC Proj. S-230 B (1) Lincoln Co.; two 10 ft. over Steiman Branch, road from Route 24 south to Dalton, Route SJ. Proj. S-408 (1) Chariton Co.; two 10 ft. over Bogby Branch, road from Yates to Roanoke, Route SB Proj. S-179 (1) Randolph Co.; rein.-con. deck girder spans, concrete bents on rock, one 50 ft. and two 40 ft. over Crane Pond Creek, road from Minimum north and south, Route SC Proj. FAS 171 (1), Iron Co.; one 45 ft. and two 20 ft. over Panther Creek, road from Weaubleau south to Polk, Route SE Proj. FAS 178 (2) Hickory Co.; two 50 ft. and one 40 ft. over Twelve Mile Creek, road from Fredericktown south, Route 67 Proj. FA 101 B (4) and three 40 ft. over Cedar Creek, road from Route 67 west to Frenchville Route ST Proj. S-728 (2) Sect. B, both Madison Co.; one 35 ft. and two 25 ft. I-beam spans concrete bents and steel pile bents over Windsell Creek, road from Sullivan northeast to St. Clair, Route 66 Proj. FI 258 (3), Sect. A Franklin Co.; one 35 ft. and two 30 ft. I-beam spans concrete bents on creosoted timber piling over Drainage Ditch Lateral 1, road from Campbell to Holcomb, Route 53 Proj. F 221 (7) Sect. B, Dunklin Co.; one 80 ft. steel truss and two 25 ft. I-beam spans, creosoted pile bents over Mussel Fork Creek, road from Route 5 east to Route SB Proj. FAS 622 (5) Route SD, Chariton Co.; all foregoing under $40,000 each; one 140 ft. steel truss and two 50 ft. steel truss spans, concrete piers and creosoted pile bents over Main Ditch 1, road from Parma to Lilbourn, Route SD Proj. Sect. 5, New Madrid Co., over $40,000.

Bids Asked December 4

Ill., Chicago—City, Dpt. P. Wks., City Hall, operators houses and enclosures, appurtenances for double leaf trunnion bascule bridge South Canal St. Plans deposit $25.

Bids Asked December 5

Ill., Chicago—City, Dpt. P. Wks., City Hall, substructure fixed highway bridge over Calumet River at E. 130 St. Plans deposit $25.

Bids Asked December 10

†**Tennessee**—U. S. Eng., U. C. Courthouse, Nashville, Zone 1, substructure Sligo Bridge over Caney Fork River, on Hy. 26, 7 mi. east of Smithville, DeKalb Co., Serial 40-058-47-1. Extended date.

Bids Asked December 11

California—State Div. Hys., Sacramento, concrete bridge, substructures for 4 bridges, grading, applying bituminous surface treatment 10.2 mi. between Keene and Tehachapi, Kern Co. G. T. McCoy, Sacramento, state hy. engr.

Bids Asked December 12

California—State Div. Hys., State Bldg., Los Angeles, rein.-con. undercrossing on Santa Ana Parkway at Olympic Parkway, Los Angeles, Los Angeles Co. G. T. McCoy, Sacramento, state hy. engr.

California—State Div. Hys., State Bldg., Los Angeles, rein.-con. box girder overcrossing and undercrossing on Santa Ana Parkway at Esperanza St. and Indiana St., Los Angeles, Los Angeles Co. G. T. McCoy, Sacramento, state hy. engr.

LOW BIDDERS

Connecticut—State Hy. Dpt., Hartford, Nov. 12, bridges, Hamden, from D. V. Frione & Co., Inc., 87 Foxon Rd., New Haven, **$86,328** ***Manchester, from Burnelli Constr. Co., Main St., Southington, **$103,166.** CD 11/1—ENR 11/7***Saybrook, from Charter Oak Const. Co., Inc., 525 Main St., Hartford, **$44,832**** Suffield, from Costello Const. Co., 15 Pomfret St., Hartford, **$54,537.** CD 11/7.

★**D. C., Wash.**—Dist. Comrs., District Bldg., rejected bids Oct. 31, superstructure for South Capitol St. Bridge. L.B. **$2,123,354.** CD 11/7—ENR 11/14, under LB.

Kansas—State Hy. Dpt., Junction City, Oct. 31, overpass, Geary Co., from Carrothers Constr. Co., Paola, **$198,806;** overflow bridge, Geary Co., from R. G. Aldridge Const. Co., 1310 State St., Kansas City, Mo., **$128,301.** CD 10/16—ENR 10/24.

Michigan—State Hy. Dpt., Lansing, Nov. 7, grade separation carrying tracks of M.C.R.R. over Hy. U.S. 112 By-Pass 0.2 mi. east of Washtenaw Co. line, FAGH-XI, 82-21-8ABC-5, Wayne Co., from Darin & Armstrong, 2041 Fenkell Ave., Detroit. **$130,750.**

†**Ore., Coquille**—Pub. Rds. Admin., Cascade Bldg., Portland, China Flat bridge across south fork of Coquille River, from Pickens Constr. Co., Astoria. **$62,795.**

South Carolina—State Hy. Dpt., Columbia, rejected bids Oct. 15, bridges Hampton Co. L. B. **$48,957,** CD 10/21—ENR 10/24 under LB. ***Abbeville Co., L. B. **$26,092**box culvert Richland Co. L. B. **$14,281.** CD 10/3—ENR 10/10.

Texas—State Hy. Comn., Austin, Nov. 13, widening structures 0.149 mi. Mitchell Co., from W. N. Van Nees, P. O. Box 487, Carrollton. **$125,480.** CD 11/6—ENR 11/14.

West Virginia—State Hy. Dpt., Charleston, rejected bids Nov. 1, Latonia Bridge 1639, Gilmer Co. L.B. **$61,026.** CD 10/24—ENR 10/31.

CONTRACTS AWARDED

Illinois and **Missouri** — Terminal Railroad Assn., H. Austill, ch. engr., 1800 Market St., St. Louis, Zone 3, Mo. reconstructing pedestrian and vehicular deck Eads Bridge over Mississippi River, to William J. Howard, Inc., 35 E. Wacker Dr., Chicago, 1, Ill. **$291,000.** (**Correction**—name of contractor). CD 10/29—ENR 10/31, under CA.

STREETS AND ROADS

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked November 27

Louisiana—State Dpt. Hys., Baton Rouge, washed gravel surface course 35.5 mi. State Routes 480,221 and 619, S. P. 93-01-03, 321-01-04, 365-03-02 and 822-06-02, Calvin-Friendship, Tannehill-Gansville, Zion-Winnfield and Winnfield-Georgetown Hys., Winn and Grant Parishes.

★**New York**—Henry A. Cohen, dir. Bureau Contrs. & Accounts, The Alfred E. Smith State Office Bldg., Albany, bituminous macadam paving, grading, 2.86 mi. Monroe Co., $345,000, plans deposit $10; concrete paving 1.91 mi. Chemung Co., $161,000; 1.83 mi. Ontario Co., $262,000, plans deposit $5 each; grading, structures, asphaltic concrete paving, grading and 54 ft. T-beam span, 32 I-beam (Alpha) span bridge 9.37 mi. Chemung Co., $1,371,000, plans deposit $20; concrete paving 11.18 mi. Onondaga Co., $815,000; 4.99 mi. Schoharie Co., $1,004,000, plans deposit $10 each; traffic signal sys. 4.36 mi. Nassau Co., $74,000, plans deposit 5; adv. ENR 11/21.

Bids Asked November 29

Kentucky — State Dpt. Hys., Frankfort, grading, draining, traffic bound surfacing 9.321 mi. beginning near the Wayne Co. line and exten. to near Beuell Post Office, Whitley City-Monticello Rd., S-428 (4), S.P. 94-73, McCreary Co.; grading, draining, 4.247 mi. beginning at approach to proposed bridge at Rockcastle River and exten. to present U.S. 25 in Livingston, London-Mt. Vernon Rd., FI 517 (2), S.P. 102-177, Rockcastle Co.

Bids Asked December 2

Florida—State Rd. Dpt., Tallahassee, sand bituminous road mix pavement, etc. 12.778 mi. Rd. 31, between Rd. 74 at Bermont and point approx. 12.778 mi. north, S.P. 0103-104 and 0401-105, Charlotte and DeSoto Counties; lime rock base with bituminous surface treated pavement, etc., 4.967 mi. Rd. 30 between Rd. 20 in Perry and Hampton Springs, S.P. 3809-102, Taylor Co. H. P. Coloney, state hy. engr.

Kansas—State Hy. Comn., Atchison, grading, light type surfacing 6.41 mi. Proj. S-265 (1) Atchison Co.; 1.499 mi. Proj. S-388 (11); 1.859 mi. S-389 (1), both Wabaunsee Co.

La., DeQuincy — S. Tontenot, mayor, DeQuincy, asphalt paving, concrete curbing, guttering various streets. Plans deposit $30. Barnard & Burk, 314 Triad Bldg., Baton Rouge, engrs.

Missouri—State Hy. Dpt., Jefferson City, graded earth and surfacing, 0.666 mi. road from Brunswick north, Route SA (11) Proj. S-532 (3); 0.066 mi. road from Salisbury north to Macon Co. Route SB (129) Proj. S-774 (3); 0.358 mi. road from Route 24 south to Dalton Route SJ Proj. S-408 (1) all foregoing Chariton Co., 2.145 mi. road from Windyville south to Route SP Route SK Proj. S-202 (1); 0.506 mi. Route SK south to Long Lane, Route SP Proj. S-202 (2), both Dallas Co.; 4.337 mi. Route SC Proj. S-230 (1), 1.522 mi. road from Moscow Mills to Old Monroe Route SC Proj. S-230 B (1), both Lincoln Co.; 4.133 mi. Route SD, Proj. FAS 168 B (1); 1.365 mi. Route SD Proj. S-168 C (1) road from Jackson Co. line south to West Line, both Cass Co.; 3.388 mi. road from Ironton to Reynolds Co. line Route SM Proj. S-329 (1); 0.214 mi. road at Minimum Route SC-Proj. FAS 171 (1), both Iron Co.; 4.464 mi. Route SNN-Proj. FAS 102 (2), and 1.995 mi. Route SNN Proj. S-102 (3) road from Gobler South, Dunklin and Pemiscot Counties; 2.187 mi. road from Cedar Co. line to Humansville Route SN Proj. S-851 (2), 1.834 mi. road from Hickory Co. line south to Humansville, Route SE Proj. S-178 C (1) both Polk Co.; 2.671 mi. Route SE, Proj. FAS 178 (2) and 3.112 mi. Route SE Proj. S 178 (3) road from Weaubleau south to Polk Co. line, Hickory Co.; 2.988 mi. road from Pender west to Oregon Co. line Route SD Proj. S 709 (4), and 2.064 mi. road from Oxly to Naylor Route, SB Proj. S-709 (3) Ripley Co.; 0.104 mi. road from Yates to Roanoke, Route SB Proj. S 179 (1) Randolph Co.; 3.934 mi. road from Route SM south to Hagers Grove, Route SC Proj. S 126 (1) Shelby Co.; 4.833 mi. road from east of Baring, Route SK Proj. FAS 828 B (1) Knox Co.; 4.021 mi. road from Route SD east to Saline City, Route SP Proj. S-265 (1) Saline Co.; 0.237 mi. road from Audrain Co. line south to Route 49, Route SM Proj. S-127 (2) Callaway Co.; 3.463 mi. road from Seneca to Racine, Route SK Proj. S-350 (1) Newton Co.; 4.17 mi. road from Gerster N.E. to Hickory Co. line Route ST. Proj. S-354 (1) St. Clair Co.; 1.953 mi. road from Calm to Ripley Co. line, Route SD Proj. S-709 (5) Oregon Co.; 2.942 mi. road from Route 34 to Cascade Route SM Proj. S-120 (2), Wayne Co.; 0.284 mi. road from Parma to Lilbourn, Route SD, Sect. 5, New Madrid Co.; 4.104 mi. road from Route 67 west to Trench Mills, Route ST-Proj. S-728 (2), Sect. B, Madison Co.; graded earth and concrete surfacing 4.16 mi. Route 67 Proj. FA 101 B (7), 2.88 mi. Route 67 Proj. FA 101 B (6), 1.439 mi. Route 67 Proj. FA 101 B (5), and 3.939 mi. Route 67 Proj. FA 101 B (4) road from Fredericktown south, Madison Co.; 1.081 mi. road from In Poplar Bluff, Route S.U. Proj. S-130 A (1) Butler Co.; 9.584 mi. road from Bourbon to Sullivan, Route 66 Proj. FI 248 (7) Crawford Co., 4.476 mi. road from Sullivan northeast to St. Clair, Route 66 Proj. F.I. 258 (3) Sect. A, Franklin Co.; graded earth and oiled surfacing 2.491 mi. road from Prairie Hill to Randolph Co. line Route SW Proj. S-192 (1) Sect. A, 2.154 mi. road from Route 5 east to Route SB, Route SD Proj. FAS 622 (5), both Chariton Co.; 1.48 mi. Route SE Proj. S-174 B (1) and 4.271 mi. Route SE Proj. FAS 174 A (1) road from Route 63 east to Wilson, Adair Co.; 5 mi. road from Cellao north Route SH Proj. S-786 (2) Macon Co.; 1.509 mi. road from Route SE west to Chariton Co. line, Route SW Proj. S-192 (1) Sect. B, Randolph Co.; gravel surfacing 4.494 mi. Route SZ Proj. S-96 (1) Sect. B and 3.906 mi. Route SZ Proj. S-96 (1) Sect. A, road from Monett East to Route 39, Barry Co.; graded earth, cement stabilizer and 22 ft. bituminous concrete paving, 2.822 mi. Route 53 Proj. F-221 (7) Sect. B, and 3.722 mi. Route 53, Proj. F 221 (7) Sect. A, road from Campbell to Holcomb, Dunklin Co.; graded earth 2.731 mi. Route 21, Proj. F 375 (5) Sect. B and 4.165 mi. Route 21 TR, Proj. F 375 (5), road from DeSoto north and south, Jefferson Co. CD 10/31—ENR 11/14.

SOON LETS CONTRACT

Tex., Houston—C. N. Brinkley & Assoc., c/o Galena Park, Houston, soon let contract street paving. $70,000.

STREETS AND ROADS (Low Bidders, Cont'd.)

LOW BIDDERS

Florida—State Hy. Dpt., Tallahassee, Nov. 7, imprv. S 2606-106, Alachua Co., from Marion Contg. Co., Ocala, **$248,198***S 1019-104, and S 1006-107, Hillsborough Co., from L. J. & W. L. Cobb, Inc., 1102 N. 22 St., Tampa, **$61,691 and $284,552** respectively***S 1602-109, Polk Co., from Brinson Const. Co., First National Bank Bldg., Tampa, **$73,537***S 7509-101, Orange Co., from Langston-Hubbard Const. Co., Orlando, **$38,511.** CD 10/21—ENR 10/24.

★**Iowa**—State Hy. Comn., Ames, Nov. 12, from **Koss Const.** Co., 205 Old Colony Bldg., Des Moines, imprv. 8.492 mi. Calhoun Co., **$330,168;** 8.018 mi. Floyd Co., **$301,307;** 2.286 mi. Pottawattamie Co., **$329,841*** from Kaser Const. Co., West Des Moines, 7.502 mi. Buchanan and Fayette Counties, **$108,049;** 7.534 mi. Clinton and Jones, **$128,023;** 8.632 mi. Washington Co., **$137,096*** from Kramme & Jensen Constr. Co., 109 Easton Blvd., Des Moines, 0.247 mi. Washington Co., **$45,141*** from Booth & Olson, Inc., 529 Insurance Exchange Bldg., Sioux City, 1.356 mi. Woodbury Co., **$191,155*** from E. M. Duesenberg Inc., Clear Lake, 6.973 mi. Delaware Co., **$159,105*** from Burch Const. Co. 249-33 Drive, S.E., Cedar Rapids, 4.027 mi. Lee Co., **$57,332*** from Roverud Constr. Co., Spring Grove, Minn., 11.102 mi. Allamakee Co., **$137,146*** from Lowe Const. Co., Marion, 7.502 mi. Buchanan and Fayette Counties, **$74,709.** CD 10/21—ENR 10/31.

Kansas—State Hy. Dpt. Junction City, Oct. 31, imprv. 0.563 mi. Geary Co., from List & Clark Const. Co., Railway Exchange Bldg., Kansas City, Mo. **$179,832.** CD 10/16—ENR 10/24.

Massachusetts—State Hy. Dpt., Boston, Nov. 5, bituminous concrete surfacing 2.350 ft., Attleboro, from Sacco Stone & Asphalt Co., P.O. Box 1070, Woonsocket, R. I. **$16,041.**

Michigan—State Hy. Dpt., Lansing, Nov. 7, grading, draining, bituminous concrete paving, widening, resurfacing 2.025 mi. M-21 from Flint East Limits East to Belsay Rd.; 1.01 mi. M-21 from Port Hy. to Flint East Limits, F.25-51-C-1, Genessee Co., from Oak Constr. Co., 520 E. Lincoln Ave., Royal Oak. **$258,371.**

Minnesota—State Hy. Dpt., St. Paul, rejected bids Oct. 25, imprv. 10.7 mi. S.P. 6014-03, T.H.102-178, S-209 (1), L.B. **$201,840;** 6.1 mi. S.P. 8408-09, T.H. 75-6, F-343 (22). L.B. **$160,918.** CD 10/10—ENR 10/17.

★**New York**—Bureau Contrs. & Accounts, Albany, Nov. 13, imprv. 1.49 mi. Nassau Co., from Frank Mascali & Sons, Inc., 4634 3 Ave., New York, **$294,457** est. $315,000***12.69 mi. Madison Co., from Arute Bros., Inc., 560 S. Main St., New Britain, Conn., **$2,655,318** est. $2,691,000***0.86 mi. Kings Co., from Euclid Concrete Corp. & I. S. Miller, Contr. Corp., 3414 Crescent St., Long Island City, **$929,863** est. $938,000. Received no bids Nov. 13. imprv. 6.33 mi. Monroe and Genesee Counties **$664,000;** 16.15 mi. Clinton Co. **$1,746,000;** 0.28 mi. Bronx Co. **$883,000.** CD 10/30—ENR 11/7.

N. C., Goldsboro — City, Oct. 31, street imprvs., from Barrus Constr. Co., Box 561, Kinston. **$167,980.** CD 10/18—ENR 10/24.

Pennsylvania—State Hy. Dpt., Harrisburg, rejected bids Oct. 25, imprv. 1,301 ft. Beaver Co. L.B. **$74,424.** Will readvertise. CD 10/29—ENR 10/31, under LB.

South Carolina—State Hy. Dpt., Columbia, rejected bids Oct. 15, imprv. 1.183 mi. Kershaw Co. L.B. **$83,083;** 0.908 mi. Orangeburg Co. L.B. **$11,932.** CD 10/3—ENR 10/10.

Texas—State Hy. Comn., Austin, rejected bids Oct. 22, imprv. 6.61 mi. Liberty Co. L. B. **$231,359***3.19 mi. Delta Co. L. B. **$217,050***7.915 mi. Bowie Co. L. B. **$135,508.** CD 10/25—ENR 10/31, under LB.

Texas—State Hy. Comn., Austin, rejected bids Oct. 25, imprv. 3.739 mi. Brazoria Co. L. B. **$47,881***8.506 mi. Robertson Co. L. B. **$80,574***14.441 mi. Schleicher Co. L. B. **$179,781.** CD 10/28—ENR 10/31, under LB.

★**Texas**—State Hy. Comn., Austin, Nov. 13, imprv. 20.537 mi. Hall and Lamb Counties and 7.421 mi. Clay Co., from N. B. Hoffman & Ernest Loyd, P.O. Box 1120, Fort Worth, **$173,224** and **$96,252** respectively *** 6.787 mi. Smith Co. and 5.939 mi. Orange Co., from E. W. Hable & Son, Corsicana, **$145,896** and **$243,844** respectively***6.53 mi. McCulloch Co., from Harry Campbell, 2435 Winton Terrace West, Fort Worth, **$191,803***** 0.95 mi. Panola Co., from Austin Bridge Co. P.O. Box 3, Houston, **$2,268,260***9.785 mi. mi. Harris Co., from Brown & Root, Inc. Atascosa Co., from Colglazier & Hoff, Inc., 326 Sequin Rd., San Antonio, **$94,465***** 1.173 P.O. Box 3, Houston, **$2,268,260***** 8.785 mi. mi. Archer and Wichita Counties, from Stuckey Constr. Co. P.O. Box 1645, Wichita Falls, **$100,867***** 10.151 mi. Midland Co., from Ted B. Smith, P.O. Box 60, Sweetwater, **$71,304***** 2.802 mi. Collin Co., from Long Bros., 400 South Waddill St., McKinney, **$49,587***** 5.08 mi. Hill Co., from Oran Speer & T. N. Brown & Son, Alvord, **$71,882***** 18.938 mi. Parmer Co., from Bell & Braden, Herring Hotel Bldg., Amarillo, **$197,912.** CD 11/6.

†**Washington**—Pub. Rds. Admin., Cascade Bldg., Portland, Ore., grading Republic-Kettle Falls Hy. in Colville, from E. W. Elliott, Dexter Horton Bldg., Seattle, Zone 4. **$69,496.** CD 12/26/45—ENR 1/10.

CONTRACTS AWARDED

Minnesota—State Hy. Dpt., St. Paul, imprv. 8 mi. S.P. 3402-02, T.H. 7-119. F943 (1), to De Ruyter Bros., Triumph, **$102,840;** 7.9 mi. S.P. 8162-02, T.H. 13-13, F-346 (9), to Brown & Leguil, Mankato, **$205,741.** Bids 10/25. CD 10/10—ENR 10/17.

Minn., Duluth—St. Louis Co., W. H. Borgan, aud., imprv. 9.7 mi. S.P. 69-530-02, SAR 22, to Ulland Bros., Austin. **$60,905.** Bids 10/25. CD 10/17.

New Mexico—State Hy. Dpt., Santa Fe, imprv. 7.525 mi. Grant Co., to W. T. Bookout Constr. Co., P.O. Box 298, Las Vegas, **$530,294***12.961 mi. Luna Co., to Brown Brothers, P.O. Box 1479, Albuquerque, **$229,488***8.705 mi. Chaves Co., to G. I. Martin, 520 S. Tulane St., Albuquerque, **$302,168.** Grand total $1,061,950. CD 10/31—ENR 11/7.

†**N. M., Albuquerque**—U.S. Eng., Commercial Bldg., hard asphalt paving, Sandia Base, to Robert E. McKee, 1900 Texas St., El Paso, Tex. **$65,000.**

Oklahoma—State Hy. Dpt., Oklahoma City, imprv. 6.391 mi. Lincoln Co., to H. D. Youngman, Baxter Springs, Kan. **$173,692,** est. $182,363; 3.43 mi. Payne Co. to Stone & Falls, Ada, **$87,161,** est. $92,484. Bids 10/29, awarded 11/12 CD 10/21—ENR 10/24.

Pa., Phila—P. Wks., Dpt., City Hall Annex, paving various streets, to State Paving & Constr. Co., 1924 Arch St., **$58,676;** and to General Asphalt Paving Co., Glenview and Rising Sun Aves. **$52,172.** Awarded 11/1. Thomas Buckley, dir. and ch. engr.

Tex., Dallas—Dallas Railway & Terminal Co., Interurban Bldg., removing Mt. Auburn St. street car tracks and paving, own forces. Approx. **$45,000.**

Tex., Houston—Houston Bank & Trust Co., 119 Main St., 2 mi. asphalt paving, to Gulf Bitulithic Co., 2820 Polk St. Approx. **$66,000.**

Tex., San Antonio—J. A. Lewis, Travis Bldg., paving, own forces. Approx. **$55,000.**

★**West Virginia**—State Hy. Dpt., Charleston, imprv. 5.695 mi. Raleigh Co., to Vecellis & Grogan, Beckley, **$301,522;** 3.7 mi. Summers Co., to Sutton Co., Inc., Radford, **$704,200.** Bids 11/1, awarded 11/4. CD 10/24—ENR 0/31.

Que., Westmount—Municipality, C. W. Houston, clk., Westmount, street widening and paving, to A. Duranceau, 4 E. Notre Dame St., Montreal. **$82,270.**

EARTHWORK, WATERWAYS

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked November 25

Ont., Niagara Falls—S. Sterling, co. clk., c/o Niagara Twp., (owner) 15 mi. open drain, 16 standard concrete hy. culverts from 4x4x24 ft. to 6x18x24 ft. Approx. $55,000. R. B. Erwin, c/o owner, engr.

Bids Asked November 27

N. B., Caissie's Cove—Dpt. P. Wks., Ottawa, Ont., breakwater reconstr. and dredging. Approx. $50,000. Plans deposit $20. Bids 7/3 rejected. R. Blais, c/o owner, engr. CD 6/24—ENR 7/27.

Bids Asked December 4

Calif., San Diego—City, Civic Center Bldg., San Diego, dredging, filling, dikes, spillways, removing piers, Municipal Yacht Harbor "Commercial Basin" area along adjacent existing shore line in San Diego Bay, Ingelow St. to Byron St.

Bids Asked December 9

†**Arizona**—Bureau Reclamation, Denver, Colo., furnishing, del. f.o.b. cars shipping point or f.o.b. cars Blair, Okla., and Yuma, Ariz., screw-lift gates for "A" Canal and "A" Laterals, Unit 1, Yuma Mesa Division, Gila Proj., Spec. 1530. W. R. Young, ch. engr.

Bids Asked December 13

†**Idaho**—Bureau Reclamation, Denver, Colo., furnishing, del. f.o.b. cars shipping point or f.o.b. cars Cascade, 16 trashracks for inlet structure of outlet works of Cascade Dam, Payette Div., Boise Proj., Spec. 1532. W. R. Young, ch. engr.

Bids Asked December 19

†**Idaho**—Bureau Reclamation, Cascade, clearing part Cascade Reservoir site, Payette Div. Boise Project, Spec. 1540. W. R. Young, ch. engr.

Bids Asked December 27

†**California**—Bureau Reclamation, Denver, Colo., furnishing, del. f.o.b. cars shipping point or f.o.b. cars Tulelake, all apparatus necessary for conversion to increased capacity of the motor-control equip. at Pumping Plant D, Modoc Unit, Tule Lake Div., Klamath Proj., Oregon-California, Spec. 1543. W. R. Young, ch. engr.

LOW BIDDERS

†**N. J., Bayonne**—U. S. Eng., 120 Wall St., New York, Zone 5, N. Y., Nov. 12, dredging channel on north side of U. S. Navy Supply Base, Serial W-30-075-47-37, from Great Lakes Dredge & Dock Co., 17 Battery Pl., New York, N. Y. **$92,986.** CD 11/1—ENR 11/7.

CONTRACTS AWARDED

★†**California**—Bureau Reclamation, Antioch, 11.2 mi. Delta-Mendota Canal incl. Mountain House road, siphon, Spec. 1435, to Morrison-Knudsen Co., Inc., 111 Sutter St., San Francisco, and M. H. Hasler, Box 387, Santa Ana, **$3,025,121;** 200,000 bbl. cement for Delta-Mendota Canal, Spec. 1353, to Calaveras Cement Co., 315 Montgomery St., San Francisco, **$437,744.** Bids 9/6. CD 9/10—ENR 9/12, under LB.

†**Colorado**—Bureau Reclamation, Denver, steel penstocks for Mary's Lake and Estates Park Power Plant, Colorado-Big Thompson Proj., Spec. 1393, to Darby Products, Steel Plate Corp., First and Walker Sts., Kansas City, Kan. **$732,756.** Bids 7/30. CD 6/24—ENR 7/4.

Colo., Longmont—City, Longmont, 26,700 ft. 16 and 30 in. OD pipe for pipeline between Longmont Diversion Dam on North St., Brain River and Longmont Hydro-Electric Plant, to Thompson Pipe & Steel Co., 3001 Larimer St., Denver. **$120,055.** Awarded 11/1.

Conn., Bridgeport—Buckley Brothers, 30 Seaview Ave., dredging 200,000 cu.yd. natural Harbor entrance, foot of Seaview Ave., oil terminal dock, to Arundel Corp., Ft. Fulton St., Brooklyn, N. Y. **$75,000.** Westcott & Mapes, 109 Church St., New Haven, engrs.

†**Idaho**—Bureau Reclamation, 214 Broadway, Boise, preparing concrete aggregates, Star Lake Deposit, Payette Div., Boise Proj., Spec. 1405, to Quinn-Robbins Co., 703 S. 16 St., Boise. **$23,125.** Bids 7/29. CD 7/10—ENR 7/18.

†**New Mexico**—Bureau Reclamation, Denver, Colo., 8.9 mi. Hudson Canal Lateral system Unit 5 and Troutman, Smith and Harris Laterals, Tucumcari Proj., to J. A. Terteling & Sons, Inc., Box 1428, Boise, Idaho. **$934,948.**

†**Washington**—Bureau Reclamation, Denver, Colo., three 40,000 KVA transformers and spare parts for use in development hydroelectric power at Grand Coulee Dam, Spec. 1384, to Westinghouse Electric Corp., 306 4 Ave., Pittsburgh, Pa. **$159,166.** CD 6/17—ENR 6/20.

★†**Washington**—Bureau Reclamation, Coulee Dam, Potholes Dam, Columbia Basin Proj., Spec. 1400, to C. F. Lytle Constr. Co., 505 Nebraska St., Soiux City 1, Ia., Green Constr. Co., 312 Masonic Temple Bldg., Des Moines 9, Ia., and Amis Constr. Co. P.O., Box 1871, Oklahoma City, Okla. **$9,359,011.** Bids 8/15. CD 8/20—ENR 8/22, under LB.

★**Alta., Spring Coulee**—Prairie Farm Rehabilitation Admin., G. Spence, dir., 910 McCallum Hill Bldg., Regina, Sask., main dam, at St. Mary Dam Proj., 4 mi. northwest of here, to W. C. Wells, Wilkie, Sask. Approx. **$2,081,700.** Bids 11/4. CD 10/11—ENR 10/17.

AIRPORTS & AIRBASES

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

LOW BIDDERS

La., New Orleans—AIRPORT IMPRVS.—New Orleans Aviation Bd., 302 City Bldg., Nov. 6, bldg. addns., alterations at Moisant Airport, Proposal 5288, from Keller Const. Corp., 7930 Palm St. **$62,545.** M. H. Golsteim & H. A. Benson, 812 American Bank Bldg., New Orleans, archts.

O., Akron—AIRPORT—Comrs. Summit Co., J. J. Kohler, clk., imprv. Akron-Canton Airport, concrete ramp and water supply, sewer disposal, from The Garaux Bros. Co., 416 9 St. S.W., Canton. **$45,657.** Bids 9/25 and 10/3 respectively.

PUBLIC BUILDINGS

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked November 25

B. C., Tranquille—Dpt. P. Wks., E. C. Carson, minister, Victoria, sanitorium bldgs. Approx. $350,000. H. Whitaker, c/o owner, archt.

Ont., Malton—Dpt. Transport, Ottawa, 1 story, 28x336 ft., glass, brick administration bldg. addn., alterations. Approx. $100,000. Plans deposit $10. J. Schofield, 355 McGill St., Montreal, Que., archt.

Bids Asked December 2

Miss., Poplarville—Bd. Supervs. Pearl River Co., Poplarville, garment plant. Bids 8/5 rejected. Shourds & Bean, Gulfport, archts. CD 8/15—ENR 8/22, under LB.

Bids Asked December 3

†**N. Y., Northport**—Veterans Admin., Vermont Ave. between H and I Sts., relocating section of 2,300 volt feeder line at Veterans hospital.

Wash., Seattle—University of Washington, 1030 Henry Bldg., Zone 1, 4 story, bsmnt., 55x183 ft. rein.-con. classroom bldg. Over $205,000. Plans deposit $20. Bids 10/24 rejected. Heath, Gove & Bell, 1611 Puget Sound Bank Bldg., Tacoma, archts. CD 10/11—ENR 10/17.

Bids Asked December 4

N. B., St. John—Dpt. P. Wks. Ottawa, Ont., garage and workshop bldg. for Dpt. Veterans Affairs at Ridgewood Health and Occupational Center. Approx. $175,000. Plans deposit $25. CD 8/29—ENR 10/3.

PUBLIC BLDGS. (Bids Asked, Cont'd.)

Bids Asked December 6

★**Ill., Urbana**—E. L. Stouffer, archt. University of Illinois, Urbana, Womans Residence Hall. $1,500,000. Shaw, Naess & Murphy, 80 E. Jackson St., Chicago, archts.

Bids Asked December 11

†**Montana** — Bureau Reclamation, Denver, Colo., furnishing, del. f.o.b. cars shipping point or f.o.b. cars Columbia Falls, one 80x100 ft. prefabricated steel bldg. to be used for fire station and shop, Hungry Horse Govt. Camp, Hungry Horse Project, Spec. 1539. W. R. Young, ch. engr.

★**Que., Montreal**—Wartime Housing Ltd., R. A. Newcombe, secy., 159 Bay St., Toronto, Ont., 200 dwellings in Mercier Ward, on Haig and Cantricoeur Sts., south of Sherbrooke St. E. Approx. $1,000,000.

Bids Asked December 16

†**Washington**—Bureau Reclamation, Denver, Colo., furnishing, del. f.o.b. cars shipping point or f.o.b. cars Almira, structural steel for glass-block windows for machine shop at Grand Coulee Dam, Columbia Basin Proj., Spec. 1545.

Bids Asked December 20

†**Montana**—Bureau Reclamation, Denver, Colo., furnishing, del. f.o.b. cars shipping point or f.o.b. cars Whately, one 69,000 volt, 600-ampere, 3-pole, single-throw, manually-gang-operated, horizontal-mounting out-door-type disconnecting switch, three single pole, outdoor, line-type lightning arresters, two 69,000 volt, 60 cycle, 3 phase, oil-immersed, self-cooled, outdoor-type metering units, etc. for Metering Station at Montana Power Company's Tap to 54 kv Fort Peck-Whately Line, Fort Peck Proj., Spec. 1533. W. R. Young, ch. engr.

Bids Asked December 23

★†**N. Y., Peekskill**—U. S. Eng., 120 Wall St., New York, Zone 5, Franklin Delano Roosevelt Hospital for Veterans Admin., Vermont Ave. between H and I Sts. N.W., Wash. 25, D. C. $15,000,000. Extended date. CD 10/31—ENR 11/7.

Bids Asked

Tex., Morton—Cochran Co., R. E. Strickland, judge, courhouse remodeling and addn. $273,707. R. E. Butler, Box 418, Lubbock, engr. CD 10/30—ENR 11/14.

Ont., North Bay—Hospital Comn., c/o Mrs. J. Smorthwaite, 620 Cassells St., Queen Victoria Memorial Hospital exten. Approx. $250,000. CD 12/10/45—ENR 3/7/46.

LOW BIDDERS

Calif., Inglewood—Centinela Valley Union High School Dist., 235 S. Grevillea St., Nov. 8. 1 and part 2 story, rein.-con. shop, 235 S. Grevillea St., from Haddock Engineers, Ltd., 129 W. Second St., Los Angeles. $344,000. Est. $240,000. CD 10/22—ENR 10/24.

Mo., Excelsior Springs—City, H. W. Elson, mayor, project abandoned, light plant, $675,000 bonds defeated. Burns & McDonnell Eng. Co., 107 W. Linwood Blvd., Kansas City, Mo., consult. engr. CD 8/15—ENR 8/22.

N. Y., Newcomb—Bd. Educ., Central School Dist. 1, Newcomb, received no bids Oct. 25, central school. $250,000. Will readvertise. CD 10/1—ENR 10/3.

CONTRACTS AWARDED

Ala., Birmingham—Jefferson Co. Bd. Educ., c/o Chairman, Birmingham, 18 room Powderly-Wenonah School and 16 room Powderly-Wenonah High School, to Daniel Constr. Co., 822 Seventh Ave. S. $208,785 and $293,606, respectively. E. B. Van Keuren & Chas. P. Davis, Martin Bldg, archts. CD 8/27—ENR 9/19.

Ala., Tuscaloosa — Bryce Hospital, c/o Director, Tuscaloosa, working men's bldg., to Upchurch Const. Co., 28 Sayre St., Montgomery. $262,987. Bids 11/7. CD 10/15—ENR 10/17.

Conn., Norwich—City, Water Dpt., Norwich, 1 story, 55x170 ft., brick, steel, concrete utility bldg., incl. house equip. and shop dpt., to John D. McWilliams & Co., Falls Ave. Est. $55,000. CD 10/29—ENR 10/31, under LB.

Minn., Elk River—City, H. A. Briggs, clk., furnishing, installing diesel generating units in municipal power plant, to Worthington Pump & Mchy. Corp., 2428 University Ave., St. Paul. $114,491. Bids 10/29. CD 10/24—ENR 10/31.

Miss., McComb—McComb Separate School Dist., c/o chairman, McComb, high school, to Currie & Corley, Raleigh. Approx. $373,000. CD 10/24—ENR 10/31, under LB.

Mo., Hannibal—City, W. W. Watson, supt. Bd. P. Wks., 10,000 kw. turbo-generator unit for power plant addn., to Westinghouse Electric Corp., Keystone Hotel, Pittsburgh, Pa. $310,000***14,000 sq. ft. condenser and auxiliaries, to Elliott Co., Jeannette, Pa. $69,000***switchgear equip. and transformers, duplex control bd. and storage battery, accessories, etc., to General Electric Co., 1 River Rd., Schenectady, N. Y. $223,630. Grand total $602,630. Bids 11/1. CD 10/8—ENR 10/17.

Mo., Hannibal—City, W. W. Watson, supt. Bd. P. Wks., received no bids Nov. 1, building for power plant addn. CD 10/8—ENR 10/17.

★**N. Y., New York**—New York City Housing Auth., 122 E. 42 St., Zone 17, rehabilitation houses, 12 E. 132 St., 218 E. 95 St., 220 E. 95 St., 121 E. 110 St., 334 E. 121 St., 128 E. 110 St., and 2157 Fifth Ave., to John A. Johnson & Sons, 268 41 St., Brooklyn, $443,000; Sidney L. Strauss, 70 E. 45 St., archt.; houses, 241 E. 7 St., 255-7 Rivington St., 241-3 Rivington St., 708 E. 5 St., 254 E. 4 St., 264 Stanton St., 328 E. 8 St., 363 E. 8 St., 112 Suffolk St., 21 Pitt St., and 6 Norfolk St., to Wilcox Constr. Co., Inc., 25-20 41 Ave., Long Island City, $765,000. H. J. Feldman, 415 Lexington Ave., Zone 17, archt.

Nev., Las Vegas—City, c/o City Clk., War Memorial Bldg., 1 and 2 story, rein.-con. irregular shaped city jail and police station, to C. D. Bagnall, 1505 Border Ave., Box 274, Torrance, Calif. Est. $311,000. Richard Stadelman, 14 Fremont St., archt.

Okla., Norman—Bd. Affairs, Capitol, Oklahoma City, press bldg. for University of Oklahoma, to Bollinger Constr. Co., Braniff Bldg., Oklahoma City. $217,900. Est. $175,000. Bids 11/7, awarded 11/9. CD 10/28—ENR 10/31.

Okla., Oklahoma City—Bd. Affairs, Capitol, Oklahoma City, University Hospital bldg. addn., to Builders Constr. Co., Perrine Bldg. $393,655. Bids 11/7, awarded 11/8. CD 10/28—ENR 10/31.

Pa., Allentown—City, converting army barracks to apartments to Matthew McCloskey & Co., Inc., 1620 W. Thompson St., Phila. $343,840. Awarded 10/24.

★†**Washington**—Bureau Reclamation, Custom House, Denver, Colo., four 13,600 volt, 3 phase, vertical shaft type motors, to Westinghouse Electric Corp., Gas & Electric Bldg., Denver, Colo., $1,652,671; 2 same type motors, to General Electric Co., 650 17 St., Denver, Colo., $874,361, above for Grand Coulee Pumping Plant, Columbia Basin Proj., Spec. 1373. CD 8/26—ENR 8/29, under LB.

Ont., Cornwall—Separate School Bd., school, to A. E. Farley, 30 Russell Ave., Ottawa. Approx. $220,000.

Sask., Moose Jaw—Wartime Housing Ltd., 159 Bay St., Toronto, Ont., 50 houses, to Bird Constr. Co., 21 Dominion Bank Bldg., Moose Jaw. Approx. $275,000.

COMMERCIAL BUILDINGS

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked November 26

Conn., Fairfield — Fairfield Preparatory School, Barlow Rd., 20 classroom college prep school. $450,000. Fletcher Thompson, Inc., engr., and Gerald J. Phelan, archt., both 211 State St., Bridgeport. CD 10/24—ENR 10/31.

Bids Asked December 10

Miss., Holly Springs—Rust College, c/o Dr. L. M. McCoy, pres., Holly Springs, dormitory and administration bldg. $250,000. Plans deposit $35. Extended date. Poundstone, Ayers & Goodwin, Palmer Bldg., Atlanta, Ga., archts. CD 10/24—ENR 10/31.

Bids Asked

Ont., Ottawa — Kaplan & Sprahman, archts., 305 Dundas St., Toronto, theatre, for United Centuries Theatres Ltd., 21 Dundas Sq., Toronto. $300,000.

LOW BIDDERS

Tex., Dallas—Carl M. Brown & Assoc., 1505 E. Campo St., project abandoned, shopping village. $2,000,000. Hare & Hare, 114 W. 10 St., Kansas City, Mo., consult. engrs. CD 8/31/45—ENR 9/20/45.

Tex., Dallas—Carl Kellogg, Tower Petroleum Bldg., project abandoned 100 Monterrey type dwellings, $400,000; community center. $250,000. CD 3/29—ENR 4/4.

Tex., San Antonio—Co-operative Apartment Homes, c/o H. A. Robards, 805 Majestic Bldg., project abandoned 100 apartment bldgs. $275,000. CD 8/8/45—ENR 8/23/45.

CONTRACTS AWARDED

Calif., Concord—David Zuckerman, 521 S. 5 St., 40 residences, Berkshire Village. Owner builds. $300,000.

Calif., San Bruno—George W. Williams, 10 California Dr., Burlingame, 90 residences, Mills Park, No. 3 Sect. Owner builds. $450,000.

Del., Woodcrest (Wilmington P.O.)—George H. McGovern, Inc., 207 W. 4 St., Wilmington, residential development, separate contracts. $300,000. J. A. McKibbin, 503 S. Broom St., Wilmington, archt.

Ga., Atlanta—Jake Levy, 226 Moreland Ave., 36 frame dwellings, Clifton Court and Flat Shoals Way. Owner builds. $216,000.

★**Ind., Ft. Wayne**—Ralph L. Shirmeyer, Inc., 405 Cal-Wayne St., housing in southeastern section, on Spaatz, John and Weisser Park Aves., between Sherwood Terrace and Pettit Ave. Owner builds. $1,120,000.

Kan., Goodland—Boothroy Memorial Hospital, Goodland, 2 story, bamnt., 40x75 ft., brick, concrete hospital addn., boiler and laundry in separate bldg. connected by tunnel to main bldg., to Rhoads Constr. Co., Goodland. $220,000. Awarded 11/1.

★**Kan., Kansas City**—H. H. Vietor, 1841 N. 37 St., 150 residences, Victory Manors, separate contracts. $1,500,000.

La., Metairie—Arthur J. Porche, 250 Beverly Dr., 54 houses, Airline Hy. and Severn St. Owner builds. $300,000.

★**Md., Annapolis**—Owner, c/o E. Harder archt., 137 Spa View Ave., two hundred 1 story, 5 room concrete residences, to McCloskey Co., 1620 W. Thompson St., Baltimore Est. $1,300,000. CD 8/20—ENR 8/22.

★**Md., Baltimore**—Modern Bldg. Co., 1621 John St., Baltimore, 150 residences, separate contracts. $2,250,000.

Md., Baltimore—Cole Constr. Co., 303 Mace Ave., forty 2 story, bsmnt., 20x30 ft., brick residences, Daniels and Taylor Aves., separate contracts. $280,000. James R. Cox, 228 Lincoln Ave., Towson, archt.

Md., Baltimore—Stonewall Corp., 13 W. 25 St., 2 story, brick, General Lee Apartments, to Jackson Const. Co., 13 W. 25 St. $220,000. W. F. Stone, Jr., 2612 N. Charles St., archt.

N. J., Maple Shade—Lilly & Shore Const. Co., Maple Shade, residential development, separate contracts. Over $205,000.

N. J., Maple Shade—Renwick & Brennan, 130 E. Main St., residential development, separate contracts. Over $205,000.

N. J., Trenton—Louis Rostock, 732 Cherry Tree Lane, residential development. Owner builds. Over $205,000. C. F. Adams, 1122 Riverside Ave., archt.

N. J., Ventnor—Jack J. Campbell, 9207 Ventnor Ave., Margate, residential development, separate contracts. Over $205,000. R. B. Williams, 6 S. Hanover Ave., Margate, archt.

O., Bay Village—Huntmere Homes, Inc., 2180 Fenwick Ave., Cleveland Heights, ninety-five 1 and 2 story masonry homes, Huntmere Ave., to H. I. Dolinski, 2180 Fenwick Ave., Cleveland Heights. Est. $650,000.

O., Maple Heights—Alsam Corp., 17903 St. Clair Ave., Cleveland, 50 one story, 26x29 ft., frame homes, Hampton and Watson Aves., own forces. $300,000.

★**Pa., Ardmore**—Madway Eng. & Constr. Co., 304 Levering Mill Rd., Bala Cynwyd, apartment development, separate contracts. $3,000,000.

Pa., Bryn Athyn—Louis A. Davoli, 1400 Kerper St., Phila., residential development, separate contracts. Over $205,000.

Pa., Lansdale—Frank C. Colby, Jr., Lansdale, residential development, separate contracts. Over $205,000.

Pa., Langhorne — Raymond S. Knight, Langhorne, residentail development, separate contracts. Over $205,000.

Pa., Pottstown—Maplewood Homes, Inc., 1003 N. Charlotte St., apartment development, separate contracts. $275,000. S. Kendrick Lichty, 2112 Spruce St., Phila., archt.

Pa., Phila.—Cunningham Constr. Co., 6241 Market St., residential development, Stenton Sect., separate contracts. Over $205,000. Christian H. Fries, 3701 N. Broad St., archt.

Pa., Phila.—Hyman Korman, Inc., 6031 Castor Ave., residential development, Hale St. separate contracts. Over $500,000.

Pa., Phila.—Mohn Munz, 2100 Griffith St., residential development, separate contracts. Over $205,000.

Pa., Phila.—Improved Properties Corp., 214 S. 12 St., residential development, Meridian St., to Henry S. Marsh, 214 S. 12 St. $205,000. Awarded 11/7. CD 9/5—ENR 9/12.

Pa., Phila.—Rittenhouse Built Homes, Inc., 1427 S. 6 St., residential development, Southwest Phila., separate contracts. Approx. $900,000. Frank L. Petrillo, 1420 Chestnut St., archt.

Pa., Roslyn—George T. Lawrence Co., Inc., 1330 Point Breeze Ave., Phila., residential development. Owner builds. Over $205,000.

Pa., Wynnewood—Mahoney Constr. Co., Times Medical Bldg., Ardmore, residential development, separate contracts. Over $205,000.

Tex., Dallas—S. H. Kress Co., 1300 Elm St., retail notion and department store, air-conditioning, etc., to Cowdin Bros., 411 S. Haskell. Approx. $250,000. Bids about 7/16. CD 7/10

S. C., Columbia—Shandon Methodist Church, c/o I. C. Harrison, chn. Bldg. Comn., Columbia, church, 800 seating capacity auditorium. Owner builds. $300,000. CD 11/11—ENR 11/21.

N. B., Fredericton—New Brunswick Telephone Co. Ltd., 22 Prince William St., St. John, telephone exchange, King St., to Acme Constr. Co. Ltd., 45 Canterbury St., St. John. Approx. $450,000. CD 10/23—ENR 10/31.

Ont., Kingston—Queen's University, Dr. W. McNeill, vice-principal, 1 story, 40x100 ft. stone, rein.-con., steel, hollow tile McLaughlin Hall (Engineering Bldg.), and 40x60 ft. addn., to M. Sullivan & Son, Ltd., 234 Elgin St., Arnprior. Approx. $300,000. Bids 10/31. CD 10/25—ENR 10/31.

COMMERCIAL BLDGS. (Contracts Awarded, Cont'd.)

Ont., Toronto — B. S. Ikum, 54 Wellington St. W., 2 story, rein.-con., steel theatre, Yonge St., to W. B. Sullivan, 30 Bloor St. W. Approx. **$350,000.**

INDUSTRIAL BUILDINGS

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked November 25

Ga., Atlanta — GARAGE, etc. — Georgia Power Co., 75 Marietta St., garage and storage bldg. for trackless trolleys. $175,000. Burge & Stevens, Palmer Bldg., archts. CD 11/11—ENR 11/21.

Bids Asked

Ariz., Phoenix—PUMPING STATION—Arizona Pipe Line Co., c/o Jno. B. Mills, Southland Life Bldg., Dallas, Tex., crude oil pump. station. $75,000. CD 11/4—ENR 11/14.

Conn., Hartford — WAREHOUSE — General House Wrecking Co., 2996 Main St., 1 story, 60x200 ft., brick, steel warehouse. **$55,000.** Kane & Fairchild, 49 Pearl St., archts.

Conn., New Haven — FACTORY — Superior Spring Mfg. Co., 90 Goffe St., Hartford, 1 story, 90x125 ft., brick, steel, glass block factory, Goffe St. $55,000. G. L. Dunkelberger, 44 Wolcott Hill Rd., Wethersfield, archt. CD 1/14—ENR 1/24.

N. J., Trenton—MANUFACTURING—W. W. Slack & Son, archts., 1401 W. State St., mfg. bldg., for Trenton Pipe Nipple Co., 10 Cole St. Over $55,000.

N. M., Alpine—PUMPING STATION—Arizona Pipe Line Co., c/o Jno. B. Mills, Southland Life Bldg., Dallas, Tex., pump. station. $75,000.

N. M., Vaughn—PUMPING STATION—Arizona Pipe Line Co., c/o Jno. B. Mills, Southland Life Bldg., Dallas, Tex., crude oil pump. station. $80,000.

R. I., Central Falls—FREIGHT TERMINAL, etc.—Textile Motor Express Inc., 60 E. 22 St., Paterson, N. J., 1 story, 100x100 ft., cinder block, steel freight terminal, truck garage, Blackstone and High Sts. $60,000. F. J. Roughgarden, 160 2 Ave., Hawthorne, N. J., archt.

Tex., Amarillo—PUMPING STATION—Arizona Pipe Line Co., Phoenix, c/o J. B. Mills, Southland Life Bldg., Dallas, pump. station. $100,000. CD 11/4—ENR 11/14.

Alta., Medicine Hat—REFINERY—Alberta Linseed Oil Co., Ltd., Medicine Hat, refinery. Approx. $60,000. CD 8/9/45—ENR 9/16/45.

SOON LETS CONTRACT

Calif., Avon—REFINERY—Tidewater Assoc. Oil Co., 79 New Montgomery St., San Francisco, soon lets contract experimental refinery annex and utilities bldg. $55,000.

Colo., Denver—BAKERY, etc.—Union Pacific Sys. & Millers Grocerteria, 4120 Broughton Blvd., soon lets contract 1 story, 88x194 ft., brick, steel beams and columns, bakery addn., concrete fdn., 138x410 ft. produce house; 200x410 ft. meat dept. $500,000. Roland L. Linder, Insurance Bldg., Denver, archt. CD 2/13—ENR 2/28.

Neb., Omaha—NEWS PLANT—World Publishing Co., 1504 Farnam St., soon lets contract newspaper bldg. $731,036. L. A. Daly, Insurance Bldg., Omaha, archt. CD 10/19/45—ENR 11/1/45.

Pa., Phila.—SALES AND SERVICE—E. J. Raney, Inc., 115 W. Chelten Ave., soon lets contract auto sales and service bldg. $60,000. Roth & Fleisher, 1420 Walnut St., archts.

Pa., Phila.—PLANT—George S. Idell, archt., 117 S. 17 St., soon lets contract mfg. bldg. addn., for Patent Scaffolding Co., 2835 Bridge St. $55,000.

Tenn., Elizabethton — SHOP — Elizabethton Electric Sys., soon lets contract shop, $60,000. Gill & Bianculli, Chattanooga Bank Bldg., Chattanooga, archts.

Tex., San Antonio—PLANT—The Borden Co., 875 E. Ashby St., soon lets contract ice cream plant. $55,000. Atlee B. & Bob M. Ayers, Transit Tower, archts. Frank T. Drought, Frost Bank Bldg., engr.

S. C., Bamberg—PLANT and ABATTOIR—Bamberg Electric Refrigeration Co-operative, Inc., H. D. Stuckey, pres., soon lets contract freezer locker plant and abattoir. Plans deposit $15. Extended date. Southern Eng. Co., 1070 Spring St. N.W., Atlanta, Ga., engrs. CD 11/7.

LOW BIDDERS

Ala., Troy—WAREHOUSE, etc.—Southern Alabama Electric Co-operative, Troy, warehouse and office, from Chastain & Co., Bell Bldg., Montgomery. **$79,500.** Sherlock, Smith, & Adams, 301 Washington St., Montgomery, archts.

La., Thibodaux—PLANT—Louisiana Coca-Cola Bottling Co., Thibodaux, 2 story, 40x50ft., rein.-con., brick, tile bottling plant, with 10x24ft. boiler room exten., from Keller Constr. Corp., 7930 Palm St., New Orleans. **$79,197.** CD 10/29—**ENR 10/31.**

N. J., Camden—MANUFACTURING—Stonecrete Corp., c/o Radey & MacNelly, archts., 101 N. 7 St., rejected bids 1 story, 100x350 ft., steel, concrete mfg. bldg. **$55,000.** CD 8/21—ENR 8/29.

Pa., Phila.—PLANT—Bowman Gum, Inc., 4865 Stenton Ave., project indefinitely postponed mfg. bldg. addn. **$200,000.** The Ballinger Co., 105 S. 12 St., archt. CD 9/7/45—ENR 9/20/45.

Tex., Dallas—PLANT—Safeway Stores, Inc. of Texas, 4929 Beeman St., project abandoned meat packing plant expansion, imprvs. **$60,000.** CD 9/24/45—ENR 10/4/45.

Tex., Jacksonville—PLANT—Childs Properties, Inc., project indefinitely postponed 1 story, masonry vegetable packing plant. **$60,000.** No bids opened. CD 8/13—ENR 8/22.

CONTRACTS AWARDED

Calif., Willows—PLANT—Alta California Dairies, Inc., 833 Market St., San Francisco, 1, 2 and 3 story, 93x94ft. concrete, concrete block, steel frame milk processing plant incl. milk handling equip., to Berlinger Constr. Co., Park St., Chico. Est. **$200,000.** J. G. Kelly & John Barney Rogers, both 319 Grant Ave., San Francisco, archts.

Conn., Essex—FACTORY—E. E. Dickinson & Co., N. Main St., 4 story, brick, steel factory, N. Main St., to Associated Constr. Co., 738 Main St., Hartford. Est. **$150,000.** Westcott & Mapes, 109 Church St., New Haven, archts.

Conn., Essex—SERVICE and SALES—Essex Sales Corp., R. W. Minnick, Plains Rd., 2 story, brick, steel, cinder block, auto showrooms, and garage, service and sales bldg., to Wardman Const. Co., Ivoryton. Est. **$55,000.** R. I. Carter, 28 Main St., Essex, archt.

Conn., Hartford—WAREHOUSE, etc.—Edward F. Sullivan, Inc., 541 Windsor St., 1 story, brick, steel, cinder block warehouse, office and refrigeration plant to Louis Schoolnick Co., 209 Blue Hills Ave. Est. **$55,000.**

Conn., Litchfield—SALES and SERVICE—Weer's Garage, South St., 1 story, brick, steel, cinder block service garage and sales bldg., to Felix Buzzi & Son, 612 S. Main St., Torrington. Est. **$55,000.** C. V. Johnson, 7 College Ave., Torrington, archt.

Del., Wilmington—LABORATORY—Hercules Powder Co., Delaware Trust Bldg., high test laboratory, to J. E. Healy & Sons, 707 Tatnall St. **$56,000.** Awarded 11/6. CD 10/24—ENR 10/31.

Ga., Atlanta — WAREHOUSE — Associated Investments, Inc., 649 Whitehall St. S.W., 3 story, masonry warehouse, to J. D. Roberts, 1629 West View Dr. **$180,000.**

Ga., Augusta—PLANT—John P. King Mfg. Co., Goodrich St., 2 story, brick, textile mfg. plant addn., to C. M. Guest & Sons, Anderson, S. C. Est. **$120,000.** J. E. Sirrine & Co., Greenville, S. C., archts.

Ga., Lyons—PLANT—L. E. Truax, Washington Ave., concrete block, steel plant mfg. single ply veneer boards, day labor. **$60,000.**

Ind., Columbus—GRAIN ELEVATOR—Bartholomew Co. Farmers Marketing Assn., Second and Sycamore Sts., brick, metal siding, grain elevator and feed bldg., to R. E. Schenck & Co., 450 S. Meridian St., Indianapolis. Est. **$60,000.** Awarded 11/1.

Kan., Kansas City—FACTORY—Armour & Co., c/o H. Dallas, 18 and Central Sts., Kansas City, Kan., factory, 18 and Central St., day labor. **$170,000.**

Kan., Wichita—TRAILER DEPOT—Fruehauf Trailer Co., R. W. Jacobs, secy., 10940 Harper St., Detroit, Mich., general contract, trailer service depot, 3600 N. Broadway, to Collins Const. Co., 912 Baltimore St., Kansas City, Mo. Est. **$100,000.**

La., Sterlington—PLANT—Commercial Solvents Corp., J. E. Wheeler, mgr., Monroe, chemical plant, to Ford, Bacon & Davis Constr. Corp., Monroe, **$174,630.** Est. $174,000. Awarded 11/7. CD 11/8—ENR 11/21.

Mass., Worcester — FOUNDRY — Bathgate Foundry Co., Inc., Pitts St., 1 story, 90x125 ft., brick, steel foundry, incl. offices, equip., to Edward Whitney, Spencer. Est. **$55,000.**

Mo., Kansas City—PLANT—Ashe Lockhart, Inc., c/o Mr. Lockhart, 82 St. and Woodsweather Rd., general contract plant, 82 St. and Woodsweather Rd., to J. E. Dunn Constr. Co., Reliance Bldg. **$90,000.** J. B. Shaughnessy, Reliance Bldg., archt.

Mo., Kansas City—BREWERY—Muehleback Brewing Co., 316 Oak St., brewery, 4 and Oak Sts., to Rau Const. Co., 2409 Harrison St., Kansas City, Mo. Est. **$450,000.**

Mo., St. Louis—ROUNDHOUSE—St. Louis-San Francisco R. R. Co., H. B. Barry, ch. engr., Springfield, 1 story, 68x263 ft. brick, concrete roundhouse addn., 7049 Fyler Ave., own forces. Over **$55,000.**

Mo., St. Louis—PLANT IMPRVS—Star-Times Publishing Co., 800 N. 12 Blvd., Zone 1, publishing bldg. imprvs. and alterations, incl. partitions, etc., and improved dock facilities, to Dickie Constr. Co., 317 N. 11 St., Zone 1. Est. over **$70,000.** M. L. Pereira & Assoc., 100 W. Monroe St., Chicago, Ill., archts.

Mo., St. Louis—GARAGE, etc.—Wright Motor Co., 6111 Delmar Blvd., Zone 12, two 1 story, 66x111 ft. and 51x113 ft., brick, concrete automobile service garage and office bldg. addns., 6119-6123 Delmar Blvd. to G. L. Cousins Constr. Co., 875 N. Skinker Blvd., Zone 5. Est. over **$60,000** with equip. H. H. Graf, 2825 Olive St., Zone 3, archts.

★**Tex., Houston**—POWER PLANT—Houston Lighting & Power Co., Electric Bldg., design and construction electric power plant to Ebasco Services Co., Esperson Bldg. Approx. **$5,000,000.**

UNCLASSIFIED

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked November 26

Mass., New Bedford—STATE PIER—Commonwealth of Mass., Dpt. P. Wks., 100 Nashua St., Boston, expanding, developing State Pier. Plans deposit $5.

Bids Asked November 27

Ga., Atlanta—STEAM DISTRIBUTION SYSTEM—Bd. Regents University Sys. of Georgia, Atlanta, outside steam distr. sys. for Georgia School of Technology. Plans deposit $15. Bush-Brown, Gailey & Hefferman, Physics Bldg., Ga. Technology Campus, Atlanta, archts.

Bids Asked December 2

Wash., Kelso—LIGHTING SYSTEM—City, City Hall, ornamental street lighting sys. along Pacific Ave., Allen, Oak and Main Sts. $42,500.

Bids Asked December 3

Ga., Atlanta—STADIUM—Georgia School of Technology, 225 North Ave. N. W., concrete, steel west stands, Grant Field. $500,000. Plans deposit $25. Bush-Brown, Gailey & Hefferman, Physics Bldg., archts. CD 2/7—ENR 2/14.

N. Y., New York—ESCALATOR ENCLOSURE—Bd. Transportation, 250 Hudson St., Zone 13, escalator enclosure, 149 St. and 3 Ave., Bronx Boro.

Bids Asked

★**Texas and Arizona** — OIL PIPELINES — Arizona Pipe Line Co. c/o J. B. Mills, Southland Life Bldg., Dallas, Tex., 600 mi. 8 in. crude oil pipeline carrier between Amarillo (area) Tex. and Phoenix, Ariz. $8,000,000. CD 11/4—ENR 11/14.

SOON LETS CONTRACT

Georgia—TRANSMISSION LINES—Carroll Electric Membership Co-operative, Inc., Carrollton, soon lets contract 2,217 mi. power transmission lines, Carroll, Haralson, Heard, Spaulding and Polk Counties. $324,000. Plans deposit $25. Southern Eng. Co., 1070 Spring St. N.W., Atlanta, engrs. CD 8/16—ENR 8/22.

LOW BIDDERS

†**Arizona—Nevada**—TRANSMISSION LINE—Bureau Reclamation, Denver, Colo., 69 kva. transmission line, Davis Dam Proj., western part of Arkansas, Spec. 1491, from Donovan, Inc., 1080 N. Hazel St., St. Paul, Minn. **$91,969.** CD 10/7—ENR 10/10.

Georgia—POWER LINES—Lamar Electric Membership Co-operative, Barnesville, Nov. 12, 196.8 mi. primary, secondary, service power lines in 8 Georgia Counties, from L. T. Barber, Moultrie. **$214,842.** CD 10/31—ENR 11/7.

New York—PORTAL SUMPS, etc.—Port of New Authority, 111-8 Ave., New York, Zone 11, Nov. 12, portal sumps, pumps, and pump rooms at each 4 portals of Holland Tunnel, Contr. H.T-9, from Wagner Larsen Co., 159 West St., Brooklyn. **$143,115.** CD 10/22—ENR 10/24.

Tex., Dallas—SUPERPARKING POOL, etc.—L. R. Whitson & Assoc., Mercantile Bank Bldg., project abandoned superparking pool and subway for over 6,000 autos. **$750,000.** CD 1/14—ENR 1/24.

†**Washington** — TRANSMISSION LINE — Bonneville Power Admin., P. O. Box 3537, Portland, Ore., clearing right-of-way for Colville Spirit transmission line, Stevens Co., from F. E. Wilder, R.F.D. 6, Olympia. **$69,750.**

†**Wyoming** — TRANSMISSION LINE — Bureau Reclamation, Cody, Oct. 22, Heart Mountain-Garland transmission line, Shoshone Proj., Spec. 1482, Schedule 1 aluminum conductor, from S. H. Reither, Aitken, Minn. **$177,587*****Schedule 2, copper conductor and Schedule 3 copper weld copper conductor, from Morrison-Knudson, Inc., **$19** Broadway, Boise, Idaho, **$405,414** and **$402,266** respectively. CD 10/9.

★**B. C., Seymour Narrows (P. O. Victoria)**—ROCK REMOVAL—Dominion Govt, Ottawa, Ont., removal Ripple Rock in Seymour Narrows, from Capt. R. G. Lawson, pres., Malahat Shipping Co. Ltd., Victoria. **$1,500,000.** Dpt. P. Wks., Ottawa, Ont., engr.

CONTRACTS AWARDED

Indiana—TRANSMISSION LINES—I. & M. Electric Co., A. Hogan, vice-pres., Marion, transmission lines from Deer Creek Station to Portland, Grant and Jay Counties, own forces. **$40,000.**

Okla., Tulsa—AIRPORT ADMINISTRATION BLDG.—A. Smith, city clk., restaurant addn. to administration bldg. at municipal airport, to DeWitt Constr. Co., Central Bldg. **$56,043.** CD 4/3—ENR 4/11.

LAST MINUTE CONSTRUCTION REPORTS

WATER SUPPLY

Additional earlier Construction Reports will be found in the regular section.

LOW BIDDERS

Tex., Henrietta—City, Nov. 12, WW imprvs. 200,000 gal. steel elevated tank, from Chicago Bridge & Iron Wks., 5625 Clinton Dr., Houston, **$29,495.** Est. $35,000. CD 10/29—ENR 10/31.

Tex., Houston—City, Nov. 12, 5,700 lin. ft. 24 in. c. i. watermains in Griggs Rd. and Block St., from Holland Constr. Co., 1602 Old Spanish Trail Rd., **$95,697.** Est. $102,000. G. L. Fugate, City Hall, engr.

Wash., Seattle—City, County—City Bldg., 3 and James Sts., Zone 4, Nov. 14, watermains in 36 Ave. S. W., from M. Moschetto, 5318 12 Ave. S. **$27,688.** Est. $25,523. C. L. Watelle, city engr. CD 11/7

CONTRACTS AWARDED

N. D., Streeter—City, WW. imprvs. and sewer, to The John Shaw Constr. Co., 632 1 Ave. N. Fargo, **$74,268.** Est. $80,000. Dakota Eng & Constr. Co., Valley City, engr.

SEWERS, WASTE DISPOSAL

Additional earlier Construction Reports will be found in the regular section.

LOW BIDDERS

Calif., Los Angeles—Los Angeles Co. Sanitation Dist. 2, 1206 S. Maple Ave., rejected bids Oct. 30, sewers, Joint Outfall B, Unit 1, Sect. 5, Atlantic and Hunsaker Sts. to Main St., near Hollydale, South Gate, L.B. **$537,323;** outfall trunk line sanitary sewer, Unit 4, from Reeves and Gaylord to Hill Sts., Long Beach, L.B. **$149,759;** Pico Ave. trunk sanitary sewer line from Reeves and Gaylord to First Sts., Long Beach, L.B. **$130,407.** CD 11/7—ENR 11/14, under LB.

N. Y., Bronxville—Town, project abandoned, sewers in Lawrence Park. **$60,000.** R. N. Miller, village engr. CD 3/2/44—ENR 3/23/44.

Tex., Marlin—City, E. M. Dodson, mayor, rejected bids Nov. 12, sanitary sewerage sys. extens. **$40,000.** J. V. Barton, City Hall, engr.

CONTRACTS AWARDED

★**Ill., Chicago**—Sanitary Dist. of Chicago, 910 S. Michigan Ave., Southwest Side Intercepting Sewer, Contr. 12, to Santucci Constr. Co., Skokie. **$1,669,500.** Bids 10/24, awarded 11/14. CD 10/28—ENR 10/31, under LB.

Calif., Sacramento—Sanitation Dist. 1, c/o E. A. Fairbairn, co. engr., Court House, sewage force main 2 mi. south of here, to A. Teichert & Son, Box 1133, Sacramento. **$46,268.** Bids 10/16. Bids 9/30 rejected. CD 10/4—ENR 10/10, under LB.

Mich., Detroit—State Hy. Dpt., Lansing, rerouting Fourth Ave., sewers in Lafayette Blvd. between Third and Fourth Sts., to Gargaro Co., 40 E. Seven Mile Rd. **$56,121.**

S. C., Greenwood—City, c/o F. W. Chapman, supt. P. Wks., Greenwood, sewage disposal plant, to C. Y. Thomason, Greenwood. **$262,102.** Bids 11/12. CD 10/9—ENR 10/17.

BRIDGES

Additional earlier Construction Reports will be found in the regular section.

BIDS ASKED

Bids Asked December 5

Kansas—State Hy. Dpt., Howard, Br. Sta. 157 plus 45, substructure Caney River Bridge, 65 ft. two 85 ft.-65 ft. steel beam, Proj. S-418 (3), Elk Co.; Br. Sta. 31 plus 74, two 10x7x26 ft., rein.-con. box, Proj. S-218 (2), Franklin Co.

LOW BIDDERS

Indiana—State Hy. Comn., Indianapolis, Nov. 14, bridge, Clark Co., from Smith & Johnson, 1799 Kentucky Ave., Indianapolis, **$41,482,** est. $43,411***3 bridges, Noble and DeKalb Counties, from Rieth-Riley Constr. Co., 311 W. Madison Ave., Goshen, **$101,354,** est. $122,445*** 2 bridges, Montgomery Co., from Robert H. King, Danville, **$284,013,** est. $299,680. Rejected bids Nov. 14, bridges in Allen, Spencer, Benton, Marshall Co. and and Marion Counties. CD 10/23—ENR 10/31.

Kansas—State Dpt. Hys., Ellsworth, rejected bids Nov. 8, bridge, Ellsworth Co. L.B. **$28,315.** CD 10/29—ENR 10/31.

Louisiana—State Hy. Dpt., Baton Rouge, Nov. 13, substructure, Red River Bridge (Moncla) Avoyelles Parish, from Kansas City Bridge Co., Plaguemine. **$639,899.** CD 10/11—ENR 10/17.

Michigan—State Hy. Dpt., Lansing, Nov. 7, grade separation for hy. underpass Wayne Co., from Darin & Armstrong, Inc., 2041 Fenke Ave., Detroit. **$130,750.** CD 10/25—ENR 11/7.

†**Ore., Coquille**—Pub. Rds. Admin., Cascade Bldg., Portland, rejected bids chain a flat bridge across south fork of Coquille River. L.B. **$62,795.** CD 11/14—ENR 11/21, under LB.

South Dakota—State Hy. Comn., Pierre, rejected bids viaduct, Hutchinson Co. L.B. **$32,571.** E. W. Meeker, Pierre, engr. CD 11/1.

CONTRACTS AWARDED

Ia., Vinton—Benton Co., H. J. Hartment, aud., Court House, 180x20 ft. continuous I-beam bridge, to Amos Melberg, 316 19 St. S.E., Cedar Rapids, **$31,589;** one 150x20 ft. continuous I-beam bridge, to State Const. Co., 2300 E. 12 St., Des Moines, **$27,929.** M. A. Hall, Court House, co. engr.

Kansas—State Hy. Dpt., Emporia, bridge, Lyon Co., to E. W. Geiger, Leavenworth. **$39,879.** Bids 10/30, awarded 11/13. CD 10/16—ENR 10/24.

Kansas—State Hy. Dpt., Oswego, bridges, Labette and Cherokee Counties, to C. E. Maxwell & Son, Columbus, **$61,798** and **$62,234** respectively. Bids 10/29. CD 10/16—ENR 10/24.

STREETS AND ROADS

Additional earlier Construction Reports will be found in the regular section.

BIDS ASKED

Bids Asked November 26

North Carolina—State Hy. & P. Wks. Comn., Raleigh, 7.35 mi. sand asphalt surfacing, from Route 70 north, 0.75 mi. on Co. Rd. Route 70-A west and south to point along Dixie Trail in Raleigh on Co. Rd., from road near Macedonia N.E. to Route 70 in Raleigh on Co. Rd., Betterment Sect. 4-7-38-25, Code 5900-433-4. $25,000-$50,000. W. Vance Baise, state engr.

Bids Asked December 3

Florida—State Hy. Dpt., Tallahassee, 6 ft. sand bituminous road mix pavement 20 ft. wide one 520.42 ft. concrete, steel bridge, small drainage structures, etc. 7.518 mi. State Rd. 419, between Oviedo and point approx. 2 mi. south of Chuluota, Orange Co., FASP S-167 (1), Jobs 7707-104 and 7510-201, Seminole and Orange Counties, $350,000; asphaltic concrete with binder on hot mix sand bituminous paving 2.313 mi. Job 4801-105, Rd. 10, Escambia Co. Extended date. CD 11/6—ENR 11/14. H. P. Coloney, state hy. engr.

Bids Asked December 5

Kansas—State Hy. Comn., Howard, grading, light type surfacing 1.571 mi. Proj. S-418 (3), Elk Co.; 3.959 mi. Proj. S-218 (2), Franklin Co.; 3.943 mi. Proj. S-651 (1), Miami Co.; 6.302 mi. Proj. S-338 (1), Wilson Co.

Bids Asked December 9

Tex., Kingsville—Kleberg Co., c/o B. F. Wilson, judge, grading, drainage structures, flexible base, double bithulithic surface treatment 9.23 mi. farm-to-market road from Riviera to Riviera Beach, and reconditioning 3.43 mi. road from 14 St., Kinnsville to Laurelees Gate. $120,600. C. G. Patterson, Kingsville, engr. CD 4/18—ENR 5/2.

LOW BIDDERS

Calif., Sacramento—Sacramento Co., Court House, Sacramento, Nov. 13, imprv. streets in Wright and Kimborough Arden Park Vista Unit 4, from A. Teichert & Son, Box 1133. **$69,980.** E. A. Fairbairn, Court House, co. engr.

★**Indiana**—State Hy. Comn., Indianapolis, Nov. 14, imprv. St. Joseph Co., from Bontrager Constr. Co., 618 W. Indiana Ave., Elkhart, **$598,732;** est. $633,558***3.039 mi. St. Joseph Co., from Rieth-Riley Constr. Co., 311 W. Madison Ave., Goshen, **$518,932,** est. $529,847***6.648 mi. Warren Co., from L. H. Gunsaullus, Kendallville, **$223,872,** est. $273,675. Rejected bids 11/14, imprv. 0.409 mi. Rush Co. CD 10/23—ENR 10/31.

Ia., Sioux City—Woodbury Co., W. H. Thompson, aud., Court House, graveling 57.73 mi. secondary county roads, from J. Schumacker, Irvington. **$43,391.** J. C. McClean, Court House, co. engr.

Louisiana—State Dpt. Hys., Baton Rouge, Nov. 13, imprv. 8.85 mi. Cameron and Calcasieu Parishes and 13.25 mi. Calcasieu Parish, from T. L. James & Co., Inc., Ruston. **$54,971** and **$76,112,** respectively. CD 10/29—ENR 10/31.

South Dakota—State Hy. Comn., Pierre, rejected bids Nov. 12, imprv. 12.015 mi. Davison and Hutchinson Counties. L.B. **$121,841.** E. W. Meeker, Pierre, engr. CD 11/1.

★**Texas**—State Hy. Comn., J. A. Redditt, chn., Austin, Nov. 14, imprv. 4.845 mi. Eastland Co. and 4.852 mi. Somervell Co. from Markham & Brown-Kearney, Crume & Co. 3606 Commerce St, Dallas, **$45,576** and **$227,897** respectively***5855 mi. Frio and La Salle Counties, from Colglazier & Hoff, Inc., 326 Sequin Rd., San Antonio, **$228,034***** mi. Titus, Morris and Harrison Counties, from Ned W. Hoffman, 406 Mid-Continent Bldg., Fort Worth, **$135,593***9.369 mi. Sutton Co., from Thomas &. Ratcliff, Rogers, **$301,709***** 5.021 mi. Newton and Orange Counties, from E. W. Hable & Sons, Corsicana, **$218,167***** 21.029 mi. Real Co., from H. B. Zachry Co., P.O. Box 596, San Antonio, **$372,574***** mi. Cochran and Hockley Counties, from C. Hunter Strain, San Angelo, **$83,597***** mi. Kleberg Co., from Gaylord Constr. Co., 806 Blodgett St., Houston, **$145,519***** mi. Hays Co., from L. P. Reed, P.O. Box 425, Meridian, **$102,971***12.66 mi. Delta Co., from Earl Yates & Son, Trinidad, **$105,692***** mi. Hardin Co., from Southern Constr. Co., 1901 Meadowbrook Dr., Austin, $75,069. Received no bids Nov. 14, imprv. 0.033 mi. Harrison Co. CD 11/7.

†**Washington**—Pub. Rds. Admin., Cascade Bldg., Portland, Ore., rejected bids grading Republic-Kettle Falls Hy., in Colville. L.B. **$69,496.** CD 11/13—ENR 11/21 under LB.

British Colombia—Dpt. P. Wks., Parliament Bldgs., Victoria, reconstructing 8.8 mi. Southern Trans-Provincial Hy., Rock Creek-Ingram area and Kerr Creek revision, from Hy. Constr. Co. Ltd., 789 West Pender St. **$285,045.** CD 10/30—ENR 11/7.

CONTRACTS AWARDED

Calif., San Jose—Santa Clara Co., Court House, imprv. Phelan Ave., Alma St., S. 7 and S. 10 Sts., to Piazza & Huntley, 175 S. Montgomery, San Jose, **$40,552.** Awarded 11/12. R. D. Chandler, Court House, co. engr.

Kansas—State Hy. Comn., Eldorado, imprv. 5.27 mi. F 124 (4) and 8.012 mi. F 124 (5) Butler Co., to T. F. Marbut, Emporia, **$131,808** and **$148,353** respectively; 4.153 mi. Summer Co., to M. W. Watson, National Bank of Topeka, Topeka, **$46,139.** Grand total $326,300. Bids 11/1, awarded 11/13.

Kansas—State Hy. Dpt., Ellsworth, imprv. 2.4 mi. Ellsworth Co., to List & Clark, 414 Railway Exchange Bldg., Kansas City, Mo. **$57,403.** Bids 11/8, awarded 11/13. CD 10/24—ENR 10/31.

Kansas—State Hy. Dpt., Oswego, to M. W. Watson, National Bank of Topeka, Topeka, imprv. 1.019 mi. F 137 (3) Pt. 2, **$40,081;** 0.786 mi. F 137 (3) Pt. 1, **$112,070;** 0.939 mi. F 2 (13), Pt. 2, **$81,435;** 0.74 mi. F 2 (13) Pt. 1, **$42,787,** all foregoing Labette Co. Grand total $276,373. Bids 10/29, awarded 11/13. CD 10/16—ENR 10/24.

Kansas—State Hy. Dpt., Smith Center, imprv. 9.633 mi. Smith Co., to E. W. Geiger, Leavenworth. **$207,124.** Bids 10/25, awarded 11/13.

Kansas—State Hy. Dpt., Sublette, imprv. 12.192 mi. Haskell Co., to Southwest Sand & Gravel Co., Dodge City, **$101,198;** 19.192 mi. Haskell Co., to List & Clark, 414 Railway Exchange Bldg., Kansas City, Mo. **$51,943.** Bids 11/7, awarded 11/13. CD 10/24—ENR 10/31.

EARTHWORK, WATERWAYS

Additional earlier Construction Reports will be found in the regular section.

BIDS ASKED

Bids Asked December 4

P. E. I., Montague—WHARF—Dpt. P. Wks., Ottawa, Ont., wharf reconstruction. $30,000. Bids 8/7 rejected. Plans deposit $20. CD 7/22—ENR 8/1.

Bids Asked December 10

N. Y., Huntington—Town Bd., Town Hall, timber bulkhead on east shore Huntington Harbor, ¼ mi. north of Mill Dam Rd. Plans deposit $5. F. Asbury, 355 New York Ave., engr.; adv. ENR 11/21.

Bids Asked December 18

†**Washington**—Bureau Reclamation, Denver, Colo., furnishing, del. f.o.b. cars shipping point or f.o.b. cars Odair, Wash., one 30 ton, 3 motor overhead traveling crane for Warehouse B, Grand Coulee Dam, Columbia Basin Proj., Spec. 1544.

CONTRACTS AWARDED

Calif., Modesto—Modesto Irrigation Dist., 823 11 St., rein.-con. siphon in Lateral 4 from Hy. 99 to 8 St. under Southern Pacific R. R. tracks, to Standard Materials Co., 1411 9 St., **$48,408;** concrete canal lining on Lateral 3 between McDonald Ave. and Blue Gum Ave., to M. J. Ruddy & Son, 922 J. St., **$24,831.** CD 9/17—ENR 9/27.

Calif., Modesto — Modesto Irrigation Dist., 823 11 St., canal lining in Irrigation Dists. 132 and 234, to Harvey Brizendine, 135 Faustina Ave. **$25,443.** C. E. Plummer, 823 11 St., engr.

B. C., Alert Bay—Dpt. P. Wks., c/o secy., Ottawa, breakwater, to Pacific Pile Driving Co. Ltd., 706 Fort St., Victoria. **$33,978.** CD 10/25 — ENR 10/31.

EARTHWORK, WATERWAYS (Contracts Awarded, Cont'd.)

B. C., West Vancouver — British Pacific Properties Ltd., Marine Bldg., Vancouver, clearing, grubbing, grading 165 acres in Capilano Estates, to Marwell Constr. Co. Ltd., 410 Seymour St., Vancouver. **$180,000.** Bids 11/12, awarded 11/14. CD 10/30—ENR 11/7.

N. S., Little Anse—Dpt. P. Wks., Ottawa, Ont., breakwater replacement, to Municipal Spraying & Contracting, Ltd., 1350 Barrington St. N., Halifax. **$385,143.** CD 11/8.

AIRPORTS & AIRBASES

Additional earlier Construction Reports will be found in the regular section.

BIDS ASKED

Bids Asked About December 2

†**Tex., Brownsville** — CONTROL TOWER — Dpt. Commerce, Civil Aeronautics Admin., P.O. Box 1689, Fort Worth, Zone 1, 5 story, 44 ft. high and 22½ square, brick, control tower, rein.-con fdn., at Brownsville Municipal Airport. Plans deposit $10. CD 1/17/45—ENR 3/22/45.

CONTRACTS AWARDED

N. Y., Brooklyn—AIRFIELD IMPRVS.—Dpt. Marine & Aviation, Pier A North River, New York, Zone 4, miscellaneous constr. work at Floyd Bennett Field, to James King & Sons, Inc., 350 Fifth Ave., New York, Zone 1. Est. **$150,000.** CD 10/22—ENR 11/14.

PUBLIC BUILDINGS

Additional earlier Construction Reports will be found in the regular section.

BIDS ASKED

Bids Asked November 26

Ill., Glenview—School Dist. 34, 1215 Waukegan Rd., 1 story, 236x81 ft., brick, concrete, steel school. **$350,000.** Perkins & Will, 309 W. Jackson Blvd., Chicago, archts.

Ill., LaGrange — Lyons Twp. High School Dist. 204,115 S. Brainerd St., 4 story, brick, concrete, steel high school addn. **$200,000.** J. C. Llewellyn, 38 S. Dearborn St., Chicago, archt. CD 4/11.

Mich., Detroit—Detroit Police Dpt., Clinton and Beaubien Sts., police station, Woodward Ave. Approx. $250,000. Plans deposit $10. G. R. Thompson, City Hall, city engr. CD 12/27/44—ENR 1/11/45.

Mich., Detroit—Dpt. P. Wks., Detroit, 1 story, bsmnt., 38x47 ft. brick, concrete, steel milk processing plant, for Detroit House of Correction, Plymouth. Approx. $60,000. Plans deposit $15.

Bids Asked November 29

N. Y., New York—Supt. School Bldgs., Design & Constr., 49 Flatbush Ave. exten., Brooklyn, Zone 1, general contract P.S. 102 addn., Archer Ave. between Taylor and Thieriot Aves., Bronx Boro, for Bd. Educ. Plans deposit $6.50. CD 928/44—ENR 10/15/44.

Tex., Kermit—J. B. Salmon, judge, Winkler Co., 3 story, masonry hospital. $375,000. Wyatt C. Hedrick Co., 1005 1st. Natl Bank Bldg., Fort Worth, archt. CD 4/18—ENR 7/4.

Bids Asked December 3

Ia., Winterset—City, O. D. Simmons, clk., power plant imprvs., incl. power plant addns., remodeling, equip. fdns., new bsmnt. and cooling tower; mechanical work incl. alterations to piping and auxiliaries; electrical work incl. relocating and altering switchboard, station wiring etc. Stanley Eng. Co., Muscatine, engr.

Bids Asked December 9

B. C., Vancouver—Province of British Colombia, Parliament Bldgs., Victoria, rein.-con. power house addn. $200,000. Plans deposit $25. CD 10/16—ENR 11/14.

Bids Asked December 10

Ind., Marion—Bd. School Trustees, O. J. Hooker, supt. Marion, rebuilding 2 story, bsmnt., 80x184 ft., brick, stone, rein.-con., structural steel school. $400,000. McGuire & Shook, 1400 Fletcher Trust Bldg., Indianapolis, archts. CD 9/19/45—ENR 9/27/45.

Bids Asked December 16

★**Wash., Yakima**—Yakima Valley Memorial Hospital Assn., Holtzinger Bldg., 5 story, 170x190 ft., rein.-con. hospital with powerhouse. $1,250,000. Fugard, Burt & Wilkenson, 520 N. Michigan St., Chicago, Ill., archts. J. Villesvik, Larson Bldg., assoc archt. CD 816—ENR 8/22.

Bids Asked December 17

†**Washington**—Bureau Reclamation, Denver, Colo., furnishing, del. f.o.b. cars shipping point or f.o.b. cars Almira and Odair, outdoor-type disconnecting-switch, lightning arresters, outdoor-type current transformers, power cable, etc. for Unit L-9 and 11.95 kv. substation, Grand Coulee Power plant, Columbia Basin Proj., Spec. 1538.

Bids Asked December 20

N. Y., New York—New York City Housing Auth., 122 E. 42 St., Zone 17, Jacob Riis Houses, Proj. NY 5-8, East River Dr., Ave. D and E. 8 and E. 13 Sts.; Jacob Riis City Houses, Proj. N.Y.C.-3, East River Dr., Ave. D., E. 6 and E. 8 Sts. Extended date, CD 11/1—ENR 11/7.

LOW BIDDERS

Mich., Kalamazoo—Western Michigan College of Educ., Kalamazoo, brick, steel, concrete, stone class room bldg., from M. C. J. Billingham, Inc., Kalamazoo. **$709,240.** CD 11/11—ENR 11/14.

Mich., Marquette—Northern Michigan College of Educ., Marquette, brick, steel, stone, concrete women's dormitory, from Miller-Davis Co., Kalamazoo. **$850,000.** CD 5/24/45—ENR 6/14/45.

Ore., Portland—School Bd., 631 N. E. Clackamas St., Nov. 13, general contract 1 story, 344x466 ft., concrete, frame Creston School, from E. E. Settergren, Henry Bldg. **$697,000.** Est. approx. $450,000. CD 10/21—ENR 10/24.

★**Tenn., Memphis**—University of Tennessee, c/o O. W. Hyman, 874 Union Ave., Nov. 8, dentistry bldg., from Seth Glem, 166 Monroe Ave. **$1,064,000.** CD 10/21—ENR 10/24.

Utah, Salt Lake City—State Bldg. Bd., State Capitol, Nov. 12, Memorial Bldg. for Daughters of Utah Pioneers, from Paul Paulsen Co., 55½ West 1st South St. **$352,962.** Est. $300,000. Young & Ehlers, 326 Continental Bank Bldg., archts.

CONTRACTS AWARDED

Ill., Joliet—State Dpt. P. Safety, Armory Bldg., Springfield, general contract, West Cell House alterations, to Federal Constructors, Inc., 407 S. Dearborn St., Chicago. **$517,840.** Bids 8/20, awarded 11/7. CD 9/4—ENR 9/12, under LB.

Wash., Mead—Consolidated School Dist. 354 2 schools and high school addn., day labor. **$330,000.** G. A. Pehrson, Old National Bank Bldg., Spokane, archt. CD 3/11—ENR 6/13.

COMMERCIAL BUILDINGS

Additional earlier Construction Reports will be found in the regular section.

BIDS ASKED

Tex., Houston—C. N. Brinkley & Assoc., c/o Galena Park, 100 dwellings. CD 7/12—ENR 7/25.

Wis., Arcadia—St. Joseph's Hospital, Arcadia, 3 story, bsmnt., 44x200 ft., steel, brick, tile, hospital, concrete fdn. Parkinson & Dockendorff, Linker Bldg., La Crosse, archts.

SOON LETS CONTRACT

Tex., Austin—I. and Nat Goodfriend, 716 Congress St., soon let contract commercial mercantile store, $205,000. Niggli & Gustafson, 4304 Ave. F., archts. CD 11/6—ENR 11/14.

CONTRACTS AWARDED

★**Ill., La Grange Park**—Wm. Joern & Sons, 3244 N. Cicero Ct., Chicago, three hundred and sixty-six unit 2 and 3 story apartments, incl. 19 bldgs., separate contracts. **$3,500,000.** E. T. Mittelbusher & H. T. Fisher & Assocs., 322 W. Washington St., Chicago, archts.

N. C., Charlotte—Dwight L. Phillips, Sharon Rd., 42 frame houses, on Laburnum Ave. Owner builds. **$252,000.**

INDUSTRIAL BUILDINGS

Additional earlier Construction Reports will be found in the regular section.

BIDS ASKED

Bids Asked November 29

Wash., Seattle — FOOD PROCESSING PLANT—Yankee-Spredwell Foods, 1502 4 Ave. Z, Zone 4, 1 story, 120x120 ft. rein.-con. food processing bldg. $60,000. G. W. Stoddard, Orpheum Bldg., Zone 1, archt.

SOON LETS CONTRACT

Wis., Janesville—PLANT—Libby, McNeill & Libby, W. Exchange and S. Packers Sts., Chicago, Ill., soon lets contract 1, 2 and 3 story, 60x180 ft. processing plant. R. Simpson, c/o owner, engr. CD 10/29—ENR 10/31.

★**Ill., East Peoria** — PLANT — Caterpillar Tractor Co., 600 W. Washington St., soon lets contract 790x1,190 ft. brick, concrete, steel engine plant, incl. several small bldgs. $8,000,000. Giffels & Vallet, Marquette Bldg., Detroit, Mich., archts. CD 7/26—ENR 8/1.

LOW BIDDERS

N. Y., Rensselaer — LABORATORY — Winthrop Chemical Co. Div. of Bayer Co., Rensselaer, rejected bids Oct. 10, substructure work on laboratory. $830,000. Revised plans under way. W. Stuart Thompson, 250 Park Ave., New York City, archt. CD 10/8—ENR 10/10.

Tex., Corsicana — FACTORY — Corsicana Imprv. Assn., Corsicana, 1 story, 120x160 ft. brick, steel, rein.-con. hat factory from Eckert-Fair Constr. Co. 1307 Liberty Bank Bldg., Dallas. Approx. **$72,000.** Texas Miller Products Corp., lessee J. A. Pitzinger, Southland Life Bldg., Dallas, archt. CD 10/25—ENR 10/31.

Tex., Dallas—COLD STORAGE PLANT—F. A. Kadane Pure Ice & Cold Storage Co., 906 S. Harwood St., rejected bids Oct. 25, 2 story, 100x150 ft., rein.-con. ice and cold storage plant. **$240,000.** CD 10/18—ENR 10/24.

CONTRACTS AWARDED

Calif., Marysville — WAREHOUSE — Bert McDowell Co., 114 K St., Sacramento, 140x160 ft., stran-steel, quonset type warehouse, to Far West Constr Co., 3400 San Bruno Ave., San Francisco. **$65,200.** E. D. Francis, 1012 J St., Sacramento, structure engr.

Calif., Oakland—PLANT—Butler Packing Co., 98 Ave. and San Leandro Blvd., rein.-con. steel addns. to 3 story tomato plant, to M. & K. Corp., 200 Financial Center Bldg., San Francisco. Est. **$600,000.** L. H. Nishkian, 155 Sansome St., San Francisco, Structure engr.

Calif., Redwood City—PLANT—Plant Rubber & Asbestos Co., 537 Brannan St., San Francisco, 1 story, 100x154ft., steel, corrugated asbestos mfg. plant, to Swinerton & Walberg, 225 Bush St., San Francisco. Est. **$972,000.** CD 6/21—ENR 7/4.

Calif., Richmond—LABORATORY—Standard Oil Co. of Calif., 225 Bush St., San Francisco, process laboratory, water, sewer, steam and gas facilities for entire California Research Corp., to Bechtel Bros.-McCone, 220 Bush St., San Francisco. Est. over **$55,000.**

Ia., Sioux City—WORKSHOP—Wall Street Mission, Rev. J. P. Hantla, 312 S. Wall St., brick, concrete industrial workshop, 1307 Leech Ave., to R. M. Coomer Constr. Co., 523 Insurance Exchange Bldg. Est. **$60,000.** W. Beuttler, Insurance Exchange Bldg., archt.

Neb., Omaha—WAREHOUSE—Union Pacific R. R. Co., B. H. Prater, ch. engr., 15 and Dodge Sts., produce warehouse, to Metcalfe Constr. Co., 854 National Bank Bldg., Omaha. **$100,000.** CD 11/6.

N. J., Camden—PLANT—Briscoe Box Co., Venango and Warnock Sts., Phila., Pa., 1 story, 80x160 ft., and 40x100 ft. brick, concrete, steel box mfg. plant, to James J. Clearkin, 4450 Leiper St., Phila., Pa. **$200,000.**

N. J., Roebling—STORAGE FACILITIES—John A. Roebling's Sons Co., 640 S. Broad St., Trenton, receiving-shipping and storage facilities, to Andrew Christensen & Son, Inc., 1140 Jersey St., Elizabeth. **$132,000.** Awarded 11/6.

N. C., Wilmington—PLANT—Garver Mfg. Co., Wilmington, shirt mfg. plant, to W. A. Simon, Wilmington. **$125,000.** CD 10/4—ENR 10/17.

O., Adena—WAREHOUSE—Hanna Coal Co., Leader Bldg., Cleveland, rebuilding coal mine office and warehouse, own forces. **$70,000.**

Ore., Medford—PLANT—Northern Refrigeration, Inc., 401 S. Fir St., 2 story, 75x185 ft., rein-con. cold storage plant, to H. Goldsmith, Ross Lane. **$75,141.**

Ore., Medford—PLANT—Southern Oregon Sales Co. Ltd., 18 Stewart Ave., 2 story, 76x133 ft., rein.-con. cold storage plant addn., day labor. **$82,380.**

Ore., Portland—TANKS—Texas Co., 135 E. 42 St., New York, N. Y., two 80,000 barrel tanks at Texaco plant, 3640 N. W. St. Helens Rd., to Chicago Bridge & Iron Wks., 332 S. Michigan Ave., Chicago, Ill. **$60,000.**

Ore., Portland—FREIGHT TERMINAL—Inland Motor Freight, 1001 S.E. Water, rein.-con. freight terminal and shop bldgs., to Donald M. Drake Co., 904 Lewis Bldg. Est. **$85,000.** Annand & Kennedy, Central Bldg., archt. CD 6/13—ENR 6/20.

Ore., Portland — PUBLISHING PLANT — Journal Publishing Co., Journal Bldg., remodeling bldg. for newspaper publishing plant, to D. M. Drake Co., Lewis Bldg. Est. **$262,300.** CD 7/22—ENR 8/8.

Pa., Greenville—FACTORY—R. D. Werner Co., Inc., Osgood Rd., 1 story, 100x264 ft., concrete block, steel frame factory addn. Owner builds. **$60,000.** Clipper & Clipper, Sharon, archts., Lombard Corp., 338½ W. Federal St. Youngstown, O., engr.

Pa., Phila.—MANUFACTURING—H. Weizer, 5132 N. 8 St., 1 story, 31x120 ft., brick mfg. bldg., to A. Weizer, 4547 N. 12 St. **$55,000.** Awarded 11/4.

Pa., Phila. — PLANT — American Oil Co. American Bldg., Baltimore, Md., bulk oil station, separate contracts. **$500,000.** CD 8/14—ENR 8/29.

Pa., Sharon—PLANT—Clipper & Clipper, Sharon, (owner and archt.), 3 story, 44x82 ft. printing plant addn., to Johnston McIntyre, 54 Phillips St. Est. **$60,000.**

R. I., Cranston—BOILER PLANT—Narragansett Brewing Co., New Depot Ave., 1 story, bsmnt., 50x155 ft., brick, steel, concrete boiler plant, Coombs and New Depot Aves., to Bowerman Bros. 70 Bath St., Providence. **$139,450.** CD 10/1—ENR 10/17.

R. I., Pawtucket—MILL—Pawtucket Standard Braid Co., 120 Webster St., 1 story, 50x160 ft., cinder block, steel mill addn., Webster St., to Anthony Corrado, 37 Wainwright St., Providence. Est. **$55,000.** Dwight Seabury, 208 Main St., archt.

INDUSTRIAL BLDGS. (Contracts Awarded, Cont'd.)

R. I., Pawtucket—FACTORY—Draper Corp., T. West, pres., Hopedale, 1 story, 62x145 ft., brick, steel factory addn., Pine St., to Bathelt Constr. Co., 380 High St., Holyoke, Mass. Est. **$55,000.** McClintock & Craig, Inc., 458 Bridge St., Springfield, Mass., archt.

R. I., Providence—FACTORY—Cleiman & Sons Co., 97 Federal St., 1 story, bsmnt., 60x162 ft., cinder block factory, Federal St. Owner builds. **$55,000.** Dimitri & Dimitri, 17 Exchange Pl., archts.

R. I., Providence—BOILER PLANT—New York, New Haven & Hartford R. R. Co. E. E. Oviatt, ch. engr. Yellow Bldg., New Haven, Conn., 1 story, 20x60 ft., brick, steel, concrete boiler plant, to Foskett & Bishop, 76 Blatchley Ave., New Haven, Conn. Est. **$60,000.** CD 6/13—ENR 6/20.

R. I., Providence—WAREHOUSE—School House Candy Co., 296 Charles St., 1 story, 60x200 ft., cinder block, brick warehouse, Charles St., to Joseph Flynn, 112 Lenox Ave. Est. **$55,000.** CD 10/29—ENR 10/31.

S. C., Spartanburg—PLANT—The International Minerals & Chemical Corp., Laurens Rd., sulphuric acid plant, to Fiske Carter Constr. Co., Spartanburg. Est. **$100,000.**

S. C., Spartanburg—PLANT—Draper Corp., Spartanburg, textile mfg. plant, to C. M. Guest & Sons, Anderson. Est. **$115,000.** Lockwood-Greene Engineers, Spartanburg, archts. CD 10/30—ENR 11/7.

S. C., Sumter—WAREHOUSE—Industrial Equipment Co., E. Liberty St., concrete, steel warehouse. Owner builds. **$150,000.**

Tex., Carrollton—PLANT—National Metal Products Co., c/o J. Curtis Sanford, Carrollton, concrete slab, mfg. plant addn., own forces. **$66,000.**

Tex., Denton—PLANT—Baker-Floyd Concrete Co., Denton, plant. Owner builds. Approx. **$70,000.**

Tex., Fort Worth—SHOP, etc.—Texas & Pacific Ry. Co., C. J. Gammie, ch. engr., Texas & Pacific Bldg., Dallas, shop-unit incl. concrete inspection pit, force account. **$56,000.**

Tex., Houston—PLANT—Pittsburgh Plate Glass Co., 101 Crawford St., masonry, concrete, steel type paint plant addn., to W. S. Bellows Constr. Co., 716 N. Everton St. Approx. **$92,000.** CD 3/11—ENR 3/14/46.

Tex., Jacksonville — WAREHOUSE — Childs Properties, Inc., Piggly-Wiggly, c/o Alvin Childs, Jacksonville, 148x200 ft. steel frame, concrete, metal, etc. warehouse, air-conditioning sys., to H. E. White, 1005 S. Broadway, Tyler. Approx. **$78,000.** CD 4/1.

Wash., Everett—DAIRY—Arrow Guernsey Farm, 2301 Broadway, 75x100 ft., concrete, masonry dairy, to E. Moe, c/o W. A. Johnson & Assoc., archts., Everett. Est. **$75,000.**

Wash., Mockonema—GRAIN ELEVATOR—Colfax Grain Growers, Inc., Colfax, concrete grain elevator, 150 ft. high, to Henry George & Sons, Hutton Bldg., Spokane. **$115,000.**

Wash., Spokane—WAREHOUSE—Marshall Wells Bldg. Corp., 131 Main St., 1 story, 60x280 ft., steel, masonry warehouse, to Henry George & Sons, Hutton Bldg. $65,000. CD 8/22—ENR 8/29.

Wis., Beloit—FACTORY—Fairbanks Morse & Co., 600 S. Michigan Ave., Chicago, Ill., 1 story, 163x703 ft., concrete, steel diesel locomotive plant, to Cunningham Bros., Beloit; steel, to Bethlehem Steel Co., 400 N. Michigan Ave., Chicago, Ill. Est **$920,000.** CD 11/18—ENR 11/28.

Wis., Eau Claire—WAREHOUSE—Roberts Co., 425 Galloway St., 1 story, part bsmnt., 160x160 ft., concrete block, steel warehouse, concrete fdn. to Evans-Lee Co., 600 Cameron St., P. H. Swanson, 1307 Wilson St., engr. CD 5/17/44—ENR 6/1/44.

B. C., Bridge River—GENERATOR, etc.—British Columbia Electric Railway Co. Ltd., A. C. Eddy, ch. engr., 425 Carrall St. Vancouver, 50,000 kva generator and turbine 3 floors high and approx. 24 ft. diam., generator, to Canadian Westinghouse Co., Ltd., Hamilton, Ont., and turbine to Vancouver Eng. Wks. Ltd., 419 W. 6 St., Vancouver. **$847,000.** Awarded 10/31.

B. C., Vancouver—SERVICE STATION, etc.—Black Motors, Ltd., c/o contractor, 1 and 2 story, 120x200 ft., rein.-con. service station and automotive bldg., to Commonwealth Constr. Co. Ltd., 670 Taylor St., **$125,000.** Awarded 11/4. D. E. Bell, c/o Standard Oil of British Columbia, 355 Burrard St., engr.

B. C., Vancouver—ELECTRICAL SUB-STATION—British Columbia Electric Ry. Co. Ltd., 425 Carrall St., rein.-con. electrical sub-station, to Bennett & White Constr. Co. Ltd., 510 Hastings St. **$65,000.** Awarded 11/2. T. Ingledow, 425 Carrall St., engr.

B. C., Vancouver—PLANT—International Paint Co., c/o Mercer & Mercer, archts., 615 W. Hastings St., 2 story, 50x100 ft., rein.-con. plant, concrete fdn., to British Columbia Bridge & Dredging Co., Ltd., 544 Howe St. Approx. **$57,000.** Awarded 11/13.

B. C., Victoria—PLANT—Kyuquot Trollers Co-operative Assn., 7 Erie St., Vancouver, fish handling and cold storage plant, to Victoria Pile Driving Co. Ltd., 625 Fort St. Est. **$60,000.** CD 4/11.

N. S., Hantsport — FACTORY — Canadian Keyes Fibre Co. Ltd., factory, to Redden Bros. Ltd., Windsor, Ont. **$150,000.** CD 6/6—ENR 6/27.

Ont., Chatham — WAREHOUSE — Massey-Harris Co. Ltd., 915 King St. W., Toronto, 1 story, 60 x 140 ft., brick, plate glass warehouse, concrete fdn. Wellington and Adelaide Sts., to T. C. Warnick & Sons, Ltd., Anger St., Blenheim. About. **$60,000.** CD 2/21/45—ENR 3/8/45.

Ont., Pembrooke—LOADING PLANT—Consolidated Paper Corp., Pembrooke, loading plant to handle pulp wood, own forces. Approx. **$55,000.**

Ont., Perth—GARAGE, etc.—Perkins Motor Sales, 2 Wilson St., 2 story, 100x112 ft., concrete, steel frame bar joists, garage and bowling alley, to M. Sullivan & Son Ltd., 234 Elgin St., Arnprior. About **$100,000.**

Ont., Toronto—WAREHOUSE, etc.—Aurora Constr. Co., 119 Kirknewton Rd., 1 story, concrete block, brick, warehouse and office, own forces. Approx. **$60,000.**

Ont., Toronto (Etobicoke)—BAKERY—Christie Brown & Co. Ltd., A. E. Fraser, pres., 202 King St., 1 story, mezzanine, bakery, to Dickie Constr. Co. Ltd., 17 Yorkville Ave. Approx. **$70,000.** CD 8/16—ENR 8/22.

Ont., Toronto (Etobicoke) — FACTORY — Northern Eureka Refrigerator Co. Ltd., 2777 Dundas St. W., 2 story, 60x100 ft., steel, block, brick, stone factory, to J. Seeback, 22 Cliveden Ave. Approx. **$65,000.** Hanks & Irwin, 35 Old Mill Rd., archts.

Ont., Toronto — FACTORY — Quarrington-Ostrom Co. Ltd., 77 York St., 1 story, 50x97 ft., brick, concrete block, factory, Danforth Ave. near Eastwood Rd., to F. Baldwin, 53 Glenwood Crescent. Approx. **$55,000.** G. Nielson, 27 Old Orchard Grove, archt.

Que., Brounsburg — FACTORY — Canadian Industries Ltd., 1335 Beaver Hall Hill, Montreal, 1 story, 33x114 ft., frame plastic factory, to J. L. E. Price & Co. Ltd., 680 Sherbrooke St. W., Montreal. Approx. **$55,000.**

Que., Jonquire — PLANT — Entrepot Frigoritique du Saguenay, Jonquire, refrigeration plant, to Geo. Tremblay Co., Jonquire. **$100,000.**

Que., Mont Lauriere—ABATTOIR—J. Belanger, Mont Laurier, abattoir, day labor. **$100,000.** E. A. Doucet, 2245 E. Sherbrooke St., Montreal, archt.

Que., Montreal—FACTORY—Ideal Paper Box Co. Ltd., 4201 E. Ontario St., factory, to A. Gravel, 2245 Viau St. Est. **$55,000.** CD 10/31—ENR 11/14.

Que., Montreal—FACTORY—Vanity Brassiere Co. Ltd., 7195 Urbain St., factory, to N. Barth, 4805 Maplewood Ave. **$140,000.**

Que., Montreal — PLANT — Mount Royal Dairies, Ltd., 1200 Papineau Ave., dairy products addn., to Z. Laviqueur, 10551 Grande Allee, Montreal East.

Que., Quebec City—FACTORY—Delphis Verdon, Ltd., 230 St. Helene St., 3 story factory addn., to Adelard Deslauriers & Sons Ltd., 66 Lakement St. About **$55,000.**

Que., Quebec City—FACTORY—Sico Paint, Ltd., 39 First Ave., 1 story, bsmnt, 60x120 ft. rein.-con. cement block paint factory at Gifford, near here, to Adelard Deslauriers & Sons Ltd., 68 LaSement St., about **$75,000.** G. Desmeules, 226 St. Jean St., archt. CD 8/31/44—ENR 9/14/44.

UNCLASSIFIED

Additional earlier Construction Reports will be found in the regular section.

BIDS ASKED

Bids Asked December 4

B. C., Victoria—FISHING HARBORAGE—Secretary Dpt. P. Wks., Ottawa, Ont., fishing harborage, incl. dredging, float assembly, wharf and roadway, Erie St. Approx. $67,000. Plans deposit $20. R. Blais, c/o owner, engr. CD 4/8—ENR 4/18.

Bids Asked December 11

N. J., Clifton — ATHLETIC FIELD and STADIUM — Bd. Educ., High School, Piaget Ave., school athletic field and stadium, north of High School. $100,000. Plans deposit $25. A. Rigold, 677 Fifth Ave., New York, N. Y., archt. CD 12/26/45—ENR 1/10/46.

CONTRACTS AWARDED

Calif., San Francisco—WATER PIPING SYSTEM—Dpt. Wks., City Hall, replacing hot and cold water piping sys. for group bldgs. nurses home, admin. tubercular and isolation bldgs, San Francisco Hospital, to O'Mara & Stewart Ltd., 218 Clara St., San Francisco. **$95,652.** Awarded 11/8. Dodge A. Riedy, City Hall, city archt.

Ia., Cedar Falls—STADIUM—Iowa State Teachers College, c/o Iowa State Bd. Educ., David A. Dancer, secy., 1097 Des Moines St., Des Moines, altering athletic field stadium, to John G. Miller Constr. Co., 222 W. Mullan St., Waterloo. **$54,750.** Dane D. Morgan, 218 Farmers & Merchants Bank Bldg., Burlington, archt.

Fla., Jacksonville—RADIO BROADCASTING PLANT—City, complete modern high frequency radio broadcasting plant for city signal sys., to Garvin Mfg. Co., 4545 Augusta Blvd., Chicago, 54, Ill. **$80,000.** Awarded 11/8.

Mich., Detroit—BOATHOUSE and WHARF—Chrysler Corp., 341 Massachusetts Ave., Highland Park, brick, concrete steel boat house and wharf, to F. H. Martin Const. Co., 955 E. Jefferson Ave. Est. **$159,700.**

South Dakota — TRANSMISSION LINES—James River Valley Electric Assn., Aberdeen, 179 mi. transmission lines, Brown Co., to McHugo Contg. Co., 901 Nicollet Ave., Mankato, Minn. **$49,516.** Buell & Winter Insurance Exchange, Sioux City, Ia., engrs.

Tex., Andrews—SWIMMING POOL, etc.—Andrews Co., C. W. Roberts, Jr., judge swimming pool, bath and shower house, to C. H. Leavell & Co., 1900 Wyoming St., El Paso. **$45,745.** Haynes, Strange & Kirby 19 St. and Dixie Dr., Lubbock, engrs. and archts. CD 10/29—ENR 10/31.

Utah, Salt Lake City — COLISEUM — State Bldg. Bd., coliseum at State Fair Grounds, to Robert G. Gray, 51½ West 3 South St. $120,183. Bids 10/21. CD 11/16/45—ENR 12/13/45.

Wash., Shelton—FISH HATCHERY—State Dpt. Game, 515 Smith Tower, 2 Ave. and Yesler Way, Seattle, Zone 4, fish hatchery, rearing ponds, raceways, drainage and water systems, electrical distr. sys., septic tanks, sidewalks and curbs, road surfacing, creek channel change and constr. of bldgs. to A. G. Homann Constr. Co., 112 N. Franklin St., Olympia. **$265,000.** Bids 11/7. J. H. Lyon ch. engr. CD 10/11—ENR 10/17.

PROPOSED PROJECTS

Including class of projects previously listed as *postwar*

COMMERCIAL BUILDINGS

PROPOSED WORK

Ala., Birmingham—Owner, c/o E. B. Van Keuren & Charles F. Davis, archts., Martin Bldg., 100 apartment units in Shades Valley Section. **$250,000.**

Calif., Los Angeles—Southern Calif. Telephone Co., 740 S. Olive St., Class A telephone bldg. addn., 2445 Daly St. **$400,000.**

Calif., Oakland—Evangelical Lutheran Synod, c/o Concordia College, 64 Ave. and Brann St., plans by Miller & Warnecke, Financial Center Bldg., administration bldg., incl. 16 classrooms, offices, conference room, library and chapel. **$300,000.** CD 8/16/45—ENR 9/6/45.

Calif., Oakland—Mills College, F. W. Wentworth, vice-pres., Seminary St. and MacArthur Blvd., plans by Clarence W. Mayhew, 127 Montgomery St., San Francisco, 2 story, steel frame, stucco residence hall for 100 students **$500,000.** CD 12/5/45—ENR 12/27/45.

Calif., Oakland—Oakland Bible Institute, 1428 Alice St., Oakland, plans by J. B. Anthony, 178 Grand Ave., 10 story, bsmnt., rein.-con., steel Bible Institute Temple, incl. 2300 seat auditorium, office and sixty 2 room apartments. **$600,000.** E. K. McKesson, 178 Grand Ave., consult. engr.

Calif., Redwood City—Elmer Smith, c/o Smith-Marquard Drive-In, 31 St. and El Camino Real, San Mateo, plans by E. R. MacDonald, 460 S. Van Ness Ave., San Francisco, 1 story, masonry, stucco, drive-in restaurant. **$200,000.**

Calif., Richmond—Dr. B. Whalen, 1030 Bissell Ave., Richmond, plans by E. A. Cometta, 260 S. 43 St., 1 story, frame, stucco hospital, clinic bldg. **$250,000.**

★**Calif., Sacramento**—Jere Strizek, Bohemian Village, Sacramento, plans under way de-luxe motel. **$1,000,000.**

★**Calif., Salinas**—Owner, c/o W. D. Peugh, archt., 333 Montgomery St., San Francisco, 1 story, rein.-con., frame store bldgs. **$2,500,000.**

Calif., San Francisco—Marine Firemen's Memorial Assn., 58 Commercial St., plans by H. H. Weeks, 593 Market St., San Francisco, 2 story, bsmnt., rein.-con. office bldg. $250,000.

★**Calif., San Leandro**—Blumenfeld Theatres, 25 Taylor St., San Francisco, entertainment center, incl. 900 car open air theater, roller skating rink, bowling alley, dance hall, super market and drive-in restaurant. **$1,000,000.**

★**Calif., Sausalito**—Stuart Rose, 16 George St., Sausalito, and David Straub, Belvedere, 150 to 200 family, three to six room apartment hotel on 20 acre tract bordering Waldo grade. **$2,250,000.**

Calif., Tujunga—Tujunga Research Hospital, c/o Gabel & Wyant, archts., 3733 Wilshire Blvd., Los Angeles, wood frame hospital, 10415 Glory Ave. **$250,000.**

Conn., Hartford—Connecticut Mutual Life Insurance Co., 140 Garden St., plans by Maxwell Moore & Chas. B. Salisbury, 993 Farmington Ave., West Hartford, 5 story, brick, steel apartment, Myrtle and Garden Sts. **$410,000.** Financing provided. Henri B. Vanzelm, 11 Asylum St., consult. engr. Buck & Buck, 650 Main St., structural engr. CD 7/10—ENR 7/18.

Conn., Hartford—United Yeshives Foundation, B. Rappaport, chn. Bldg. Comn., 200 Fern St., West Hartford, 2 story, bsmnt., brick, steel school, Cornwall St. **$205,000.** Financing not provided.

Conn., Middletown—Linus Baldwin, 414 Farm Hill Rd., plans under way, 60 frame, single houses, Fowler Ave. and Ridge Rd. $500,000.

COMMERCIAL BLDGS. (Proposed Work, Cont'd.)

Fla., Miami—Ed. Claughton, 316 S.E. First St., plans by Carl Blohm, 1258 S.W. Third St., 16 story, 200 room hotel. Over **$500,000.**

Fla., Winter Park—Rollins College, H. Holt, pres., Winter Park, library. **$500,000.** Financing provided.

Ill., Chicago—Illinois Bell Telephone Co., 208 W. Washington St., plans completed by Holabird & Root, 333 N. Michigan Ave., 3 story, brick, concrete, steel, telephone exchange addn. **$340,000.** Financing provided.

★**Ill., Chicago**—University of Chicago, 956 E. 58 St., Nathan Goldblatt Memorial Hospital, 6 story, brick, stone, steel, concrete cancer treatment and research. **$1,000,000.**

Ill., Evanston—Walter Powers, 135 S. LaSalle St., Chicago, preliminary plans by Leichenko & Esser, 225 N. Michigan Ave., Chicago, 4 story, brick, concrete, steel commercial bldg. **$500,000.**

Ill., Waukegan—Charles Kapschull, Waukegan, plans completed, 45 veteran homes in Glenwood Heights area. **$270,000.** Financing provided.

★**Ind., Indianapolis**—Meadow Brook Realty Co., G. Sadler, pres. Union Federal Savings & Loan Co., preliminary plans by Kelley & Allen, 435 Archts. & Bldrs. Bldg., thirty-seven 2 story, bsmnt., brick, stone, rein.-con. apartments. **$5,000,000.**

Ia., Sioux City—Catholic High School Com., c/o Rev. E. Kevane, 10 and Douglas Sts., plans by W. Beuttler, Insurance Exchange Bldg., high school. **$500,000.**

Ia., Sioux City—Morningside College, Sioux City, plans by W. Beuttler, Insurance Exchange Bldg., field house and gymnasium bldg. **$275,000.**

★**La., New Orleans**—Higgins Inc., 521 City Park Ave., New Orleans, housing. **$11,000,000.** Financing not provided.

Mass., Taunton—New England Telephone & Telegraph Co., 50 Oliver St., Boston, 2 story, bsmnt., brick, steel, concrete telephone exchange, incl. dial equip. Over **$205,000.** Financing provided. Howe Prout & Ekman, 1016 Turks Head Bldg., Providence, R. I., archts.

Minn., St. Peter—Gustavus Adolphus College, E. M. Carlson, pres., plans by Magney, Tusler & Setter, 202 Foshay Tower, Minneapolis. 3 story, bsmnt., rein.-con., stone science hall. **$205,000.**

★**Mo., Independence**—Southwestern Bell Telephone Co., 324 East 11 St., Kansas City, Mo., plans by M. R. Perry, Telephone Bldg., Kansas City, Mo., 2 story, bsmnt., masonry, tile telephone exchange bldg., Van Horn Rd. and Spring St. **$1,000,000** with equipment.

Mo., Joplin—St. Peter's Parish, c/o Rev. A. M. Tighe, pastor, plans by R. Braeckel, 1204 Broadway, 2 story, bsmnt., rein.-con., brick, stone parochial high school, 9 St. and Pearl Ave. Approx. **$210,000.**

Mo., Kansas City—Postal Life & Casualty Co., O. R. Jackson, 47 and Jefferson Sts., plans by Tanner & Mitchell, 310 Ward Parkway, office bldg., 47 and Jefferson Sts. **$350,000.**

★**Mo., St. Louis**—Committee, representing Barnard Free Skin & Cancer Hospital, 3427 Washington Ave., Bethesda General Hospital, 3649 Vista Ave. and St. Lukes Hospital, 3535 Delmar Blvd., 600 to 700 bed brick, concrete, steel, stone medical center, incl. clinics, laboratories, etc. **$10,000,000.**

Mo., St. Louis — Eastern Syndicate, c/o Naftalie Lefkowitz, 1307 Washington Ave., Zone 3, commercial bldg. on site fronting 121 ft. on north side of Washington Ave., by depth of 137 ft. along east side of 12 Blvd. Over **$250,000.** Site purchased.

N. M., Hot Springs—Health Institute, Inc., c/o C. J. Van Ruska, Hot Springs, plans by Burkwinkle & Springman, 211 W. Roma St., Albuquerque, 150 room Health Center Bldg. **$500,000.** Financing provided.

O., Cleveland Heights—L. M. Gundersen, 13124 Shaker Sq., Cleveland, 7 one story, brick, frame ranch type houses, N. Park Blvd. and Fairfax Rd. **$210,000.**

Ore., Bend—St. Charles Hospital, Bend, plans by Roald, Schmeer & Harrington, Spalding Bldg., Portland, 100 bed addn. to hospital. **$500,000.** Financing not provided.

Ore., Eugene—Eugene Theater Co., Evergreen Theaters Corp., Skinner Bldg., 5 and Union Sts., Seattle, Wash., plans by B. M. Priteca, Palomar Bldg., 3 and University Sts., Seattle 1, Wash., 1 story, 160x180 ft., rein.-con. theater. **$300,000.** Financing provided.

Pa., Butler—St. Pauls R. C. Church, Butler, plans by Walter Wimer, Negley Ave., 2 or 3 story, brick, steel school and convent, Monroe and Locust Sts. **$300,000.**

Pa., Pittsburgh—United Evangelical Church, c/o Harvey A. Schwab, archt., 552 Century Bldg., 1 and 2 story stone church. **$250,000.**

R. I., Cranston—Osteopathic Hospital of R. I., 1763 Broad St., preliminary plans by Monahan & Elkle, 255 Main St., Pawtucket, 50 bed brick, steel, concrete hospital, Norwood Ave. **$250,000.** Financing not provided.

R. I., Newport—Providence R. C. Diocese, Rt. Rev. Francis Keough, 25 Fenner St., Providence, preliminary plans by Joseph H. Mosher, 334 Westminster St., Providence, 4 story, bsmnt., brick, steel, concrete home for aged. **$900,000.**

R. I., Pawtucket—Owner, c/o Everett H. Aspinwall, 24 Underwood St., brick, steel, concrete hotel, incl. restaurant and banquet hall, etc. **$400,000.** Financing not provided.

S. C., Columbia — Shandon Methodist Church, 3215 Devine St., church. **$300,000.** Financing provided.

Tex., Abilene—Veterans Housing, Inc., Abilene, 111 dwellings. **$600,000.** Financing provided.

Tex., Austin—St. Edwards University, San Antonio Rd., addnl. bldgs. **$450,000.** Financing provided.

Tex., Beaumont—Southern Baptist Church plans by Wyatt C. Hedrick, archt. and consult. engr., 5201 Fannin St., Houston, hospital. **$600,000.** Financing not provided.

Tex., Dallas—J. C. Penny & Co., 25½ Highland Park Shopping Village, department store. **$210,000.** Financing provided.

★**Tex., Houston**—Central Houston Imprvt. Assn., c/o Walter R. Lalley, National Std. Bldg., hotel. Over **$1,000,000.** Financing not provided.

Tex., Houston—Dr. Allan C. Hutcheson & Assoc., 1720 Milford St., residential housing, **$350,000;** plans under way 100 small dwellings, **$325,000.** Financing provided.

Tex., Houston—Jordan's Jewelry Co., 411 Travis St., commercial bldgs., Houston Heights, **$205,000;** Washington Ave., **$205,000;** Telephone Rd., **$205,000;** Houston area, **$205,000.** Financing provided.

Tex., Houston—Jordan's Jewelry Co., 411 Travis St., commercial bldg., in West University Pl. **$205,000.** Financing provided.

Tex., Houston—M. H. Lurie, Magnolia Palms Courts, 3905 Humble Rd., 72 unit tourist court. **$210,000.** Financing provided. Site purchased.

Tex., Houston—West University Place Baptist Church, 6215 Auden St., revised plans by Chase & Dunlap, 212 Hawthorne St., church. **$205,000.** Financing provided. CD 1/17—ENR 1/31.

Tex., Laredo—Pan-American Fair & Livestock Show, Laredo, plans by Atlee B. & Rob. M. Ayers, Transit Tower Bldg., San Antonio, barn and exhibit bldg. **$210,000;** 3,500 seating capacity coliseum, **$300,000.** Financing provided. CD 8/28—ENR 9/5.

Tex., Pasadena—Jordan's Jewelry Co., 411 Travis St., Houston, commercial bldg. **$205,000.** Financing provided.

Tex., Wichita Falls—First Southern Presbyterian Church, Wichita Falls, plans by J. Murrell Bennett, 1602 Tower Petroleum Bldg., Dallas, brick, stone church, concrete pier and slab fdn. **$210,000.** Financing provided.

Va., Suffolk—Chesapeake & Potomac Telephone Co., 73 E. Grace St., Richmond, 2 story, concrete, steel, cinder block telephone exchange. **$370,000.**

Wis., Racine—Sisters of St. Dominic, 1200 Park Ave., plans by A. J. Seitz, 423 Main St., 3 story, bsmnt. St. Catherines High School addn. **$350,000.**

Wis., West Allis—Allis Chalmers Mfg. Co., 1126 S. 70 St., plans by C. E. Mayer, c/o owner, remodel and rearrange offices. **$358,180.**

N. B., Fredericton—Wartime Housing Ltd., 159 Bay St., Toronto, Ont., addnl. 100 houses. Approx. **$550,000.**

N. B., St. John—Wartime Housing Ltd., 159 Bay St., Toronto, Ont., addnl. 100 houses. Approx. **$550,000.**

Newfoundland, St. Johns—Total Abstinence Society, St. Johns commercial bldg., Duckworth St. **$225,000.**

N. S., Halifax—Agency, c/o Mayor J. E. Ahern, City Hall, 50 dwellings, Gottingen St. north of Stone Quarry. **$250,000.**

Ont., Ancaster—Sisters Servants of Mary Immaculate, Ancaster, convent alterations. About **$215,000.**

Ont., London—London Chamber of Commerce, R. L. Whitman, mgr., Hotel London, holiday resort near here, incl. 50 rooms, dining and restaurant facilities, swimming pool. About **$300,000.**

Ont., Niagara Falls—Eugene Pattui, c/o C. Black, 437 Queen St., 6 story, bsmnt., 80x120 ft., brick, concrete office bldg., Queen St. About **$250,000.**

Ont., Sault St. Marie—Algoma House of Refuge, Great Northern Rd., plans by Rounthwait, Cameron, Murray & Fairfield, 128 Bloor St. W., Toronto, Old Peoples Home, T shaped, 1 and 2 story administration area, bilateral lighting, air-conditioning, near here. Approx. **$250,000.**

Ont., Toronto—Odeon Theatres of Canada, Ltd., 2 King St. E., plans by J. I. English, 2 King St. W., theatre, 1501-3 Yonge St. **$215,000.**

Que., Grand'Mere—R. C. Parish of St. Jean Baptiste, c/o Rev. G. Larue, Grand'Mere, church and presbytery. **$225,000.** CD 2/15—ENR 2/28.

Que., Quebec City—Owner c/o Rousseau & Begin, archts., 1 Ferland St., theater, hotel and garage, St. Jean St. About **$700,000.**

INDUSTRIAL BUILDINGS

PROPOSED WORK

Ala., Birmingham — PLANT — Birmingham Milk Producers Corp., Birmingham, plans by G. P. Turner, Martin Bldg., 1 story, masonry milk pasteurizing plant. **$100,000.**

Ala., Huntsville — WAREHOUSE — Jones-Baugh Co., Huntsville, replacing cotton warehouse. **$100,000.** Financing provided.

Calif., Boron—FACTORY—Pacific Coast Borax Co., 510 W. 6 St., Los Angeles, plans completed 80x180 ft. and 60x120 ft. steel frame, factory. **$225,046.** Financing provided. C. C. Moore & Co., 555 S. Flower St., Los Angeles, consult. engrs.

Calif., Colusa—PLANT—California Prune & Apricot Growers Assn., Market and San Antonio Sts., San Jose, plans by Henschien, Everds & Crombie, 59 E. Van Buren St., Chicago, Ill., 2 story, brick, rein.-con. drier plant. **$100,000.**

Calif., Los Angeles—FACTORY—Western States Laquer Co., 4400 E. Washington Blvd., factory. **$192,000.**

Calif., Kingsburg—PLANT—Kingsburg Cotton Oil Co., Sierra St., Kingsburg, rebuilding plant. **$200,000.**

Calif., Napa—FACTORY—Cameron & Co., 2321 Oak St., plans by Barovetto & Thomas, 620½ I St., Sacramento, 1½ story, masonry, steel frame shirt factory. **$250,000.**

Calif., Oakland—INDUSTRIAL — Carnation Co., 14 and Poplar Sts., plans under way 1 story, 60x350 ft., steel, concrete industrial bldg. addn., incl. boiler room, garage, paint and body shop, grease shop. **$100,000.** H. M. O'Neill, 610 16 St., Oakland, consult. engrs.

Calif., Oakland—FACTORY—General Electric Company, 971 69 Ave., factory. **$130,000.** L. S. Rosener, 233 Sansome St., San Francisco, consult. engr. CD 10/2—ENR 10/10.

Calif., Oakland—PLANT—S. T. Johnson Co., 940 Arlington St., plans by C. O. Peterson & W. R. Spackman, Balboa Bldg., San Francisco, 1 story, part mezzanine 100/250 ft., rein.-con. oil burner mfg. plant. **$170,000.** J. A. Blume, 69 Post St., San Francisco, consult. engr.

Calif., Oakland—PLANT—Myers Drum Co., 6549 San Pablo, plant for manufacturing and reconditioning steel container. **$115,000.**

Calif., Palo Alto—PLANT—United Helicopters, Inc., Stanley Hill, Jr., pres., 625 El Camino Real, Palo Alto, steel quonset multiple arch aircraft plant. **$250,000.**

Calif., Riverbank—FACTORY, etc.—Riverbank Canning Co., Riverbank, plans by Donald Powers Smith, 58 Sutter St., San Francisco, 2 story, rein.-con., steel factory and office addn. **$100,000.**

Calif., Salinas—WAREHOUSE—Salinas Valley Engineering & Development Co., Box 316, plans by C. E. Butner, 7 Winham St., three 60x200 ft., concrete, steel, warehouse. Over **$150,000.**

Calif., San Jose—PLANT—Liqua-Zone Co., 944 S. First St., 200x150ft., rein.-con. glass brick soap mfg. plant. **$250,000.**

Calif., Santa Clara—FACTORY, etc.—Bibo-Castle Corp., 851 Martin St., San Jose, plans by Grieshaber & Neilan, 302 State St., New London, Conn., 1 story, concrete, steel, frame factory and office. **$500,000.** CD 10/15—ENR 10/31.

Calif., Stockton — PLANT — Gravem-Inglis Baking Co., 347 N. Aurora St., plans by L. M. Mountjoy, c/o Equipment Eng. Co., 3191 Casitas Ave., Los Angeles, 2 story, rein.-con. steel manufacturing plant. **$130,000.**

Calif., Stockton—WAREHOUSE, etc.—Moore Equipment Co., Wilson Way and Charter St., warehouse, showrooms, tractor and truck repair shop. **$200,000.**

Calif., West Sacramento—PLANT—General Petroleum Corp., Ferry and Pier Sts., Oakland, imprv. storage plant. **$175,000.**

★**Colo., Denver** — REFINERY — Continental Oil Co., Continental Oil Bldg., enlarging, modernizing oil refinery plant. **$4,000,000.** Financing provided.

★**Colo., Denver**—BULK TERMINAL—Phillips Petroleum Co., Bartlesville, Okla., bulk terminal for distr. auto and aviation gasoline at Stapleton, near here. **$450,000.**

Ga., Atlanta—GARAGE—Atlantic Greyhound Bus Lines, H. P. Brawner, vice pres., Kanawha Valley Bldg., Charleston, W. Va., plans by G. D. Brown, Box 2553, Charleston, W. Va., bus garage. **$300,000.** CD 10/24—ENR 11/7.

Ga., Atlanta—GARAGE, etc.—Georgia Power Co., 75 Marietta St., garage and storage shop for trackless trolleys. **$175,000.** Financing provided.

Ga., Augusta—BUS TERMINAL—Atlantic Greyhound Bus Lines, c/o H. P. Brawner, vice-pres., Kanawha Valley Bldg., Charleston, W. Va., plans by G. D. Brown, Box 2553, Charleston, W. Va., bus terminal. **$275,000.** CD 10/25—ENR 11/7.

Ind., Bluffton—FACTORY—Bluffton Foods, Inc., Mrs. A. Turmail, secy., Vallonia, preliminary plans 1 story, 60x300 ft., concrete block canning factory. **$100,000.**

Ind., Rochester—FACTORY—Sealed Power Corp., N. A. Moore, vice pres., Muskegon, Mich., 1 story factory, on 22 acre site. **$100,000.** Site purchased.

★**Kan., Kansas City**—PLANT—Loose-Wiles Biscuit Co., Commerce Bldg., Kansas City, Mo., mfg. plant, 7 St. and White Eagle Rd. **$3,000,000.** C. W. Watkins, Commerce Bldg., Kansas City, Mo., consult. engr., M. C. Haley, 541 Cincinnati Ave., Dayton, O., assoc. engr. CD 9/11/45—ENR 9/20/45.

Proposal Advertisements see pp. 28 to 32

U. S. Government

UNITED STATES DEPARTMENT OF THE INTERIOR, Bureau of Reclamation, Washington, D. C., October 23, 1946. Sealed bids (Specifications No. 1512) will be received at the office of the Bureau of Reclamation, Coachella, California, until 10 a.m., December 5, 1946, and then publicly opened, for furnishing labor and materials and performing all work for the *construction of earthwork, canal lining, and structures, station 6106+06 to station 6517+00, Coachella Canal, All-American Canal System, Boulder Canyon Project,* Arizona-California-Nevada. The work is situated in the vicinity of Indio, California. The principal items of work and the estimated quantities involved are as follows: Schedule No. 1, Including concrete canal lining—250,000 cubic yards of excavation for canal; 30,000 cubic yards of excavation in borrow-pits; 610,000 station cubic yards of overhaul, 3 to 12 stations; 50,000 mile cubic yards of overhaul, total haul in excess of 12 stations; Compacting 92,000 cubic yards of embankments; 9,700 cubic yards of excavation for structures; 220 cubic yards of compacted subbase; Trimming 187,300 square yards of foundations for concrete lining; 5,900 cubic yards of backfill about structures; Compacting 2,500 cubic yards of backfill; 8,800 cubic yards of backfill at top of concrete lining; 940 cubic yards of concrete in structures; 9,170 cubic yards of concrete in reinforced canal lining; 9,170 cubic yards of concrete in unreinforced canal lining; Furnishing and handling 27,000 barrels of portland cement; Furnishing and placing 124,000 pounds of reinforcement bars, ¾-inch diameter and larger; Placing 275,000 pounds of reinforcement fabric in canal lining; Placing 665 square feet of elastic filler material in joints; Placing 460 linear feet of rubber waterstops in joints; Furnishing and erecting 89 M feet bm of timber in structures; Laying 5,200 linear feet of 10-inch diameter concrete pipe; Laying 120 linear feet of 12-inch diameter concrete pipe; Laying 160 linear feet of 14-inch diameter concrete pipe; Laying 160 linear feet of 18-inch diameter concrete pipe; Laying 160 linear feet of 24-inch diameter concrete pipe; Laying 120 linear feet of 30-inch diameter concrete pipe; Laying 140 linear feet of 36-inch diameter concrete pipe; Installing 38,800 pounds of gates and gate hoists; Installing 7,400 pounds of miscellaneous metalwork; and Installing 200 pounds of ground wires. Schedule No. 2, Including asphaltic canal lining—259,000 cubic yards of excavation for canal; 26,000 cubic yards of excavation in borrow-pits; 780,000 station cubic yards of overhaul, 3 to 12 stations; 47,500 mile cubic yards of overhaul, total haul in excess of 12 stations; Compacting 92,000 cubic yards of embankments; 9,700 cubic yards of excavation for structures; 220 cubic yards of compacted subbase; Trimming and preparing 194,200 square yards of foundations for asphaltic lining; Applying 194,200 square yards of soil sterilant; 5,900 cubic yards of backfill about structures; Compacting 2,500 cubic yards of backfill; 9,000 cubic yards of backfill at top of asphaltic lining; 940 cubic yards of concrete in structures; Furnishing and handling 1,360 barrels of portland cement; 194,200 square yards of asphaltic canal lining, except asphalt; Furnishing 2,140 tons of asphalt for base course for canal lining; Furnishing 167 tons of asphalt for sealing treatment; Furnishing and placing 124,000 pounds of reinforcement bars, ¾-inch diameter and larger; Placing 245 square feet of elastic filler material in joints; Placing 460 linear feet of rubber waterstops in joints; Furnishing and erecting 89 M feet bm of timber in structures; Laying 5,200 linear feet of 10-inch diameter concrete pipe; Laying 120 linear feet of 12-inch diameter concrete pipe; Laying 160 linear feet of 14-inch diameter concrete pipe; Laying 160 linear feet of 18-inch diameter concrete pipe; Laying 160 linear feet of 24-inch diameter concrete pipe; Laying 120 linear feet of 30-inch diameter concrete pipe; Laying 140 linear feet of 36-inch diameter concrete pipe; Installing 38,800 pounds of gates and gate hoists; Installing 7,400 pounds of miscellaneous metalwork; and Installing 200 pounds of ground-wires. Two schedules are provided, one for concrete canal lining and one for asphaltic canal lining, and award of contract will be made for one schedule only. This invitation for bids does not cover the purchase of materials which are to be furnished by the Government. Materials to be furnished by the contractor and those furnished by the Government are described in the specifications which will be a part of the contract. The work shall be commenced within thirty (30) calendar days after date of receipt of notice to proceed and shall be completed within three hundred and fifty (350) calendar days from the date of receipt of such notice. Bid bond.—Guarantee will be required with each bid in an amount not less than 10 percent of the amount of the bid: *Provided,* That guarantee in excess of $2,000,000 will not be required. Performance bond.—Where the total amount payable by the terms of the contract is not more than $1,000,000, a performance bond will be required in the sum of one-half of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is more than $1,000,000 and not more than $5,000,000, the performance bond shall be in the sum of 40 percent of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is more than $5,000,000 and not more than $10,000,000, the performance bond shall be in the sum of 30 percent of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is more than $10,000,000 and not more than $25,000,000, the performance bond shall be in the sum of 20 percent of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is more than $25,000,000, the performance bond shall be in the sum of $5,000,000. Payment bond.—Whenever the total amount payable by the terms of the contract shall be more than $2,000 but not more than $1,000,000, the payment bond shall be in the sum of one-half of the total amount payable by the terms of the contract. Whenever the total amount payable by the terms of the contract shall be more than $1,000,000 and not more than $5,000,000, the payment bond shall be in the sum of 40 percent of the total amount payable by the terms of the contract. Whenever the total amount payable by the terms of the contract shall be more than $2,000,000 and not more than $10,000,000, the payment bond shall be in the sum of 30 percent of the total amount payable by the terms of the contract. Whenever the total amount payable by the terms of the contract shall be more than $10,000,000 and not more than $25,000,000, the payment bond shall be in the sum of 20 percent of the total amount payable by the terms of the contract. Whenever the total amount payable by the terms of the contract shall be more than $25,000,000, the payment bond shall be in the sum of $5,000,000. Payment bond.—Whenever the total amount payable by the terms of the contract shall be more than $2,000 but not more than $1,000,000, the payment bond shall be in the sum of one-half of the total amount payable by the terms of the contract. Whenever the total amount payable by the terms of the contract shall be more than $1,000,000 and not more than $5,000,000, the payment bond shall be in the sum of 40 percent of the total amount payable by the terms of the contract. Whenever the total amount payable by the terms of the contract shall be more than $5,000,000, the payment bond shall be in the sum of $2,500,000. Liquidated damages for delay will be one hundred dollars ($100) per day for each schedule for each calendar day's delay. Partial payments will be made monthly. (See Article 16 of the contract.) No charge to prospective bidders for copies of the specifications and drawings; to others $2.50 per copy, not returnable. For particulars, address the Bureau of Reclamation, Coachella, California; Denver 2, Colorado; or Washington 25, D. C.

Michael W. Straus,
Commissioner.
(318)

UNITED STATES DEPARTMENT OF THE INTERIOR, Bureau of Reclamation, Washington, D. C., October 28, 1946. Sealed bids (Specifications No. 1514) will be received at the office of the Bureau of Reclamation, Redding, California, until 10 a.m., December 2, 1946, and then publicly opened, for furnishing labor and materials and performing all work for the *completion of installation of Penstocks Nos. 1, 2, and 5 for Shasta Dam, Kennett Division, Central Valley Project,* California. The work is situated near Coram, California. The principal items of work and the estimated quantities involved are as follows: Transporting, installing, welding, and testing the remaining portions of Penstocks Nos. 1, 2, and 5. This invitation for bids does not cover the purchase of materials which are to be furnished by the Government. Materials to be furnished by the contractor and those furnished by the Government are described in the specifications which will be a part of the contract. The contractor shall begin work within thirty (30) calendar days after date of receipt of notice to proceed and shall complete all of the work within the number of calendar days from the date of receipt of such notice as follows: All work on Penstock No. 5, within one hundred and fifty (150) calendar days; all work on Penstock No. 2, within two hundred and seventy (270) calendar days; and all work on Penstock No. 1, within three hundred and sixty (360) calendar days. Bid bond.—Guarantee will be required with each bid in an amount not less than 10 percent of the amount of the bid: *Provided,* That guarantee in excess of $2,000,000 will not be required. Performance bond.—Where the total amount payable by the terms of the contract is not more than $1,000,000, a performance bond will be required in the sum of one-half of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is more than $1,000,000 and not more than $5,000,000, the performance bond shall be in the sum of 40 percent of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is more than $5,000,000 and not more than $10,000,000, the performance bond shall be in the sum of 30 percent of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is more than $10,000,000 and not more than $25,000,000, the performance bond shall be in the sum of 20 percent of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is more than $25,000,000, the performance bond shall be in the sum of $5,000,000. Payment bond.—Whenever the total amount payable by the terms of the contract shall be more than $2,000 but not more than $1,000,000, the payment bond shall be in the sum of one-half of the total amount payable by the terms of the contract. Whenever the total amount payable by the terms of the contract shall be more than $1,000,000 and not more than $5,000,000, the payment bond shall be in the sum of 40 percent of the total amount payable by the terms of the contract. Whenever the total amount payable by the terms of the contract shall be more than $5,000,000, the payment bond shall be in the sum of $2,500,000. Liquidated damages for delay will be one hundred dollars ($100) per day for each schedule for each calendar day's delay. Partial payments will be made monthly. (See Article 16 of the contract.) No charge to prospective bidders for copies of the specifications and drawings; to others $2.50 per copy, not returnable. For particulars, address the Bureau of Reclamation, Coachella, California; Denver 2, Colorado; or Washington 25, D. C.

Michael W. Straus,
Commissioner.
(319)

UNITED STATES DEPARTMENT OF THE INTERIOR, Bureau of Reclamation, Altus, Oklahoma: Sealed bids (Specifications No. 1510) will be received by the Bureau of Reclamation, Altus, Oklahoma, until 10 a.m., November 25, 1946, and then publicly opened, for furnishing labor and materials and performing all work for the construction of earthwork, structures, and surfacing for Reconstruction of Oklahoma State Highway No. 9, about 23 miles north of Altus. Principal items are approximately: 27,700 cubic yards fill and riprap; rolling embankment 100 roller-hours; Watering 150 M gallons; furnishing and placing 3,700 square yards gravel base; furnishing and applying 1,125 gallons of prime coat (RC-2); furnishing and placing 3,700 square yards of blended rock asphalt surface course; constructing 0.4 mile of highway shoulders; reconstructing temporary highway bridge; maintaining temporary highway crossing; raising truss spans on existing bridge; furnishing and placing 180 cubic yards concrete in bridge piers, abutments and deck slab; furnishing and placing 15,000 pounds of reinforcement bars; removing 250 cubic yards of concrete; removing structural steel from existing bridge; manufacturing and driving 315 linear feet of reinforced concrete piles; furnishing and installing 260 standard guideposts; furnishing and installing 15 R.O.W. markers; and furnishing and installing 4,284 linear feet of metal plate guardrail. Two hundred days will be allowed for the work. For particulars, address the Bureau of Reclamation, Altus, Oklahoma; or Customhouse, Denver 2, Colorado.

Michael W. Straus,
Commissioner.
(321)

UNITED STATES DEPARTMENT OF THE INTERIOR, Bureau of Reclamation, Denver, Colorado. Sealed bids (Specifications No. 1519) will be received by the Bureau of Reclamation, Denver, Colorado, until 2 p.m., December 10, 1946, and then publicly opened, for furnishing and delivering fob cars at the shipping point or fob cars at Yakima and Sunnyside, Washington, fifty-nine (59) 60-cycle, oil-immersed, self-cooled, outdoor-type transformers; sixteen (16) disconnecting-switches; eighty (80) outdoor-type, expulsion-type, disconnecting fuses; forty-eight (48) single-pole, outdoor, line-type, lightning-arresters, suitable for use on 34,500-volt, 3-phase, ungrounded-neutral circuits; for various pumping plants, Roza Division, Yakima Project, Washington. The specifications do not contain a provision for liquidated damages for delay. For particulars, address the Bureau of Reclamation, Customhouse, Denver 2, Colorado.

WALKER R. YOUNG,
Chief Engineer.
(322)

U. S. Government

UNITED STATES DEPARTMENT OF THE INTERIOR, Bureau of Reclamation, Denver, Colorado. Sealed bids (Specifications No. 1524) will be received by Bureau of Reclamation, Denver, until 10 a.m., December 9, 1946, and then publicly opened for furnishing labor and materials and performing all work for the construction of Phoenix-Tucson No. 2, 115-kilovolt transmission line, Davis Dam Project, Arizona-Nevada. Principal items are approximately: 125 miles of 115,000-volt, 3 phase, 60-cycle, single-circuit, wood-pole transmission line. The line will extend from the switching station at Phoenix, Arizona, in a southerly direction to a point about 7½ miles from Phoenix; thence in a southerly direction to a point about 3 miles west of the substation at Tucson, Arizona, or approximately 122 miles from Phoenix. The above portion of the line will be of the H-frame type of construction, and from this point to the substation at Tucson, Arizona, for approximately 3 miles, the transmission line will be of the single-pole wishbone-type of construction. The conductors for the line will be 336,400-circular mil, steel reinforced, aluminum cable. Two galvanized, high-strength, steel-strand, overhead ground wires, three-eighths of an inch in diameter will be installed on the portion of the line using H-frame structures. One overhead ground wire will be installed on the portion of the line using single-pole wishbone-type structures. Each pole of each structure will be provided with a galvanized steel-strand ground wire. The transmission line has been designed for light-loading conditions of no ice and a wind pressure of 12 pounds per square foot at 30° F. Materials to be furnished by the contractor will include but will not be restricted to the following: crossarms, guy strand, ground wire, air-break switches, insulators, and all hardware not furnished by the Government. It is desired that all of the work be completed within 400 days. For particulars, address the Bureau of Reclamation, Customhouse, Denver 2, Colorado.

Michael W. Straus,
Commissioner.
(323)

OFFICIAL PROPOSALS

Bids: December 3, 1946 (313)

State Highway Work

STATE OF NEW JERSEY
STATE HIGHWAY DEPARTMENT
TRENTON

NOTICE IS HEREBY GIVEN that sealed bids will be received by the State Highway Commissioner for:

ROUTE 23, SECTION 15

Construction of Route 23, Section 15, from High Point Park at Steeny Kill lake to Clove Road, Montague Township, Sussex County, length 2.48 miles.

Estimated: 10,755 cu. yds. Roadway Excavation—Earth
1,900 cu. yds. Borrow Excavation
29,517 sq. yds. 8" Shale Surface Course

Bids for the above will be received at the office of the State Highway Department, Room 102, State House Annex, Trenton, N. J., on Tuesday, December 3, 1946, at eleven o'clock (11:00 A.M. EASTERN STANDARD TIME), and will be opened and read immediately thereafter.

The receipt and opening of bids is subject to the proper qualification of the bidder in accordance with the provisions of the prequalification law and the regulations adopted by the State Highway Commissioner. Bidders must also submit a revised financial statement and statement of plant and equipment with their bid.

Drawings, specifications and form of bid, contract and bond for the proposed work are on file in the office of the State Highway Department, Trenton, N. J., and may be inspected by prospective bidders during office hours. Plans will be furnished on a deposit of Ten Dollars ($10.00) for each set of plans upon application to A. Lee Grover, Chief Clerk, State Highway Department, Room 102, State House Annex, Trenton, N. J. Bids must be made upon the standard proposal forms in the manner designated in the standard State Highway specifications and must be enclosed in sealed special addressed envelopes bearing the name and address of the bidder and work bid upon on the outside, and must be accompanied by a certified check drawn to the order of the Treasurer of the State of New Jersey for not less than ten percent (10%) of the amount of the bid, provided that the said certified check shall not be less than $500.00 nor more than $20,000.00 and must be delivered at the above place on or before the hour named. Copies of the standard proposal forms and special addressed envelopes will be furnished on application. Bids not enclosed in sealed special addressed envelopes will be considered informal and will not be opened. The right is reserved to reject any or all bids.

Signed: Spencer Miller, Jr.
State Highway Commissioner

OFFICIAL PROPOSALS

Bids: December 3, 1946 (312)

State Highway Work

STATE OF NEW JERSEY
STATE HIGHWAY DEPARTMENT
TRENTON

NOTICE IS HEREBY GIVEN that sealed bids will be received by the State Highway Commissioner for:

ROUTE 100, SECTION 2B

Construction of Route 100, Section 2B, from Berry Street to Port Reading Railroad (Grading), Woodbridge Township, Middlesex County, length 1.497 miles. Federal Aid Project No. UI-184 (4).

Estimated: 5,000 cu. yds. Roadway Excavation—Earth
546,000 cu. yds. Wet Excavation
971,000 cu. yds. Borrow Excavation
30,000 cu. yds. Channel Excavation

Bids for the above will be received at the office of the State Highway Department, Room 102, State House Annex, Trenton, N. J., on Tuesday, December 3, 1946, at eleven o'clock (11:00 A.M. EASTERN STANDARD TIME), and will be opened and read immediately thereafter.

The receipt and opening of bids is subject to the proper qualification of the bidder in accordance with the provisions of the prequalification law and the regulations adopted by the State Highway Commissioner. Bidders must also submit a revised financial statement and statement of plant and equipment with their bid.

NOTE: The proposed project is a "Federal Aid Project" authorized by the provisions of Title 27 of the Revised Statutes of New Jersey and supplements, and by Sections 2, 3 and 4, P. L. 521, 78th Congress, and is to be performed in accordance with the special provisions and requirements of the Federal Works Agency, Public Roads Administration, as outlined in the specifications, which provisions require that labor be employed from lists furnished by the U. S. Employment Agency, Maple and Fayette Streets, Perth Amboy, N. J. The attention of bidders is directed to the special provisions covering subletting or assigning the contract and to the use of domestic materials. The minimum wage paid to all unskilled labor employed on this contract shall be 65¢ per hour. The minimum wage paid to all intermediate grade of labor employed on this contract shall be 75¢ per hour. The minimum wage paid to all skilled labor employed on this contract shall be $1.25 per hour.

Drawings, specifications and form of bid, contract and bond for the proposed work are on file in the office of the State Highway Department, Trenton, N. J., and may be inspected by prospective bidders during office hours. Plans will be furnished on a deposit of Ten Dollars ($10.00) for each set of plans upon application to A. Lee Grover, Chief Clerk, State Highway Department, Room 102, State House Annex, Trenton, N. J. Bids must be made upon the standard proposal forms in the manner designated in the standard State Highway specifications and must be enclosed in sealed special addressed envelopes bearing the name and address of the bidder and work bid upon on the outside, and must be accompanied by a certified check drawn to the order of the Treasurer of the State of New Jersey for not less than ten percent (10%) of the amount of the bid, provided that the said certified check shall not be less than $500.00 nor more than $20,000.00 and must be delivered at the above place on or before the hour named. Copies of the standard proposal forms and special addressed envelopes will be furnished on application. Bids not enclosed in sealed special addressed envelopes will be considered informal and will not be opened. The right is reserved to reject any or all bids.

Signed: Spencer Miller, Jr.
State Highway Commissioner

Bids: December 3, 1946 (314)

State Highway Work

STATE OF NEW JERSEY
STATE HIGHWAY DEPARTMENT
TRENTON

NOTICE IS HEREBY GIVEN that sealed bids will be received by the State Highway Commissioner for:

ROUTE S-3, SECTION 5, OVERPASSES

Construction of four highway overpasses at Park Avenue, Ridge Road, Orient Way, and Route 17, Route S-3, Section 5, in the Borough of Rutherford, Bergen County, Federal Aid Project F-186 (4). The principal items of construction are:

Estimated: 6,086 cu. yds. Concrete in Structures
16,520 sq. ft. Pneumatically Applied Mortar
1,207,850 lbs. Structural Steel
373,560 lbs. Reinforcement Steel in Structures

Bids for the above will be received at the office of the State Highway Department, Room 102, State House Annex, Trenton, N. J., on Tuesday, December 3, 1946, at eleven o'clock (11:00 A.M. EASTERN STANDARD TIME), and will be opened and read immediately thereafter.

The receipt and opening of bids is subject to the proper qualification of the bidder in accordance with the provisions of the prequalification law and the regulations adopted by the State Highway Commissioner. Bidders must also submit a revised financial statement and statement of plant and equipment with their bid.

NOTE: The proposed project is a "Federal Aid Project" authorized by the provisions of Title 27 of the Revised Statutes of New Jersey and supplements, and by Sections 2, 3 and 4, P. S. 521, 78th Congress, and is to be performed in accordance with the special provisions and requirements of the Federal Works Agency, Public Roads Administration, as outlined in the specifications, which provisions require that labor be employed from lists furnished by the U. S. Employment Service, 29 Howe Avenue, Passaic, N. J. The attention of bidders is directed to the special provisions covering subletting or assigning the contract and to the use of domestic materials. The minimum wage paid to all unskilled labor employed on this contract shall be 65¢ per hour. The minimum wage paid to all intermediate grade of labor employed on this contract shall be 75¢ per hour. The minimum wage paid to all skilled labor employed on this contract shall be $1.25 per hour.

Drawings, specifications and form of bid, contract and bond for the proposed work are on file in the office of the State Highway Department, Trenton, N. J., and may be inspected by prospective bidders during office hours. Plans will be furnished on a deposit of Ten Dollars ($10.00) for each set of plans upon application to A. Lee Grover, Chief Clerk, State Highway Department, Room 102, State House Annex, Trenton, N. J. Bids must be made upon the standard proposal forms in the manner designated in the standard State Highway specifications and must be enclosed in sealed special addressed envelopes bearing the name and address of the bidder and work bid upon on the outside, and must be accompanied by a certified check drawn to the order of the Treasurer of the State of New Jersey for not less than ten percent (10%) of the amount of the bid, provided that the said certified check shall not be less than $500.00 nor more than $20,000.00 and must be delivered at the above place on or before the hour named. Copies of the standard proposal forms and special addressed envelopes will be furnished on application. Bids not enclosed in sealed special addressed envelopes will be considered informal and will not be opened. The right is reserved to reject any or all bids.

Signed: Spencer Miller, Jr.
State Highway Commissioner

Bids: December 9, 1946 (310)

Welded Steel Reservoirs

Sealed bids for the furnishing of all materials and labor for the construction of two welded steel water storage reservoirs, 120 feet diameter by 25 feet high upon foundations furnished, will be received by the City Recorder until 7:30 P. M. December 9, at the City Hall, Price City, Utah, at which time and place the bids shall be publicly opened and read aloud.

Instructions to Bidders, Form of Proposal, Bond, Sample Contract, Plans and Specifications may be obtained upon deposit of $15,00, from the City Recorder, Price City, Utah, or from Power Engineering Company, Consulting Engineers, P. O. Box 1777, Salt Lake City, Utah.

Steel plate and the major portion of structural steel specified for this construction is available at Geneva Steel Company, Geneva, Utah @ $2.675 per cwt. base.

Ben Ward,
City Recorder, Price City, Utah.

(Additional Proposals on pages 30 & 31)

OFFICIAL PROPOSALS

Bids: November 27, 1946 (309)

Highway Work

Sealed Proposals for the Improvement and Repair of Ditch No. 8-B (Big Island Channel) and Ditch No. 21 (Pumpkin Swamp Channel), which form a part of Quaker Creek in the Towns of Goshen and Warwick, Orange County, in Drainage District No. 3, the Wallkill Valley Drainage Improvement District; will be received by Henry A. Cohen, Director of Contracts and Accounts, Department of Public Works, The Governor Alfred E. Smith State Office Building, Albany, N. Y. on behalf of the Department of Public Works, until 10:30 o'clock A.M., Eastern Standard Time on Wednesday Nov. 27, 1946, at which time and place they will be publicly opened and read. The approximate amount of this work is $18,000.00.

Proposals shall be endorsed on the envelope "Proposal for Wallkill Valley Drainage Improvement District, District No. 3, Construction Project B, Quaker Creek, Big Island Channel (Ditch No. 8-B) and Pumpkin Swamp Channel (Ditch No. 21)" and addressed to Henry A. Cohen, Director, Bureau of Contracts and Accounts, The Governor Alfred E. Smith State Office Building, Albany, N. Y. and shall be accompanied by a deposit in the form of draft or certified check, upon some National or State Bank or Trust Company within the State in good credit and payable on sight to the Water Power and Control Commission, in the amount of five (5) percentum of the total amount of the proposals as a guarantee that the bidder will enter into a contract if it be awarded to him, within ten (10) days after notice of such award.

The blank spaces in the proposal must be filled in in ink and no changes shall be made in the phraseology of the proposal. Proposals that carry any omissions, erasures, alterations or additions may be rejected as informal. Successful bidder will be required to give a bond conditioned for the faithful performance of the contract and a separate bond for the payment of the laborer and material men, each bond in the sum of one hundred (100) percentum of the amount of the contract. Corporations submitting proposals shall be authorized to do business in the State of New York. Drawings and specifications may be examined free of charge at the following offices:

Guy W. Pinck, Deputy Chief Engineer
The Governor Alfred E. Smith State Office Building, Albany N. Y.
State Architect, State Office Building, 80 Center St., New York City.
J. S. Bixby, Dist. Engineer, Pleasant Valley Road, Poughkeepsie, N. Y.
R. Suter, Executive Engineer, Water Power and Control Commission, Arcade Building, Albany, N. Y. (Broadway)

Drawings and specifications may be obtained from Henry A. Cohen, Director, Bureau of Contracts and Accounts, The Governor Alfred E. Smith State Office Building, Albany, N. Y. upon deposit of $5.00 for each set.

Refund in full will be made to bidders for one set of plans and specifications returned in good condition within 30 days of award of contract or the rejection of the bids. A 50% reimbursement will be made for the return, in good condition, of all other sets of the plans and specifications within 30 days following the award of the contract or the rejection of the bids.

Checks for plans and specifications shall be made payable to the State of New York. Proposal blanks and envelopes will be furnished without charge.

C. H. SELLS,
Supt. of Public Works

Bids: December 4, 1946 (321)

Power Plant

COMMONWEALTH OF MASSACHUSETTS
METROPOLITAN DISTRICT WATER SUPPLY COMMISSION

Sealed proposals will be received at the office of the Metropolitan District Water Supply Commission, 20 Somerset Street, Boston, Mass., until 11:00 A.M., Eastern Standard Time, Wednesday, December 4, 1946, and then publicly opened, for Contract No. 152 for furnishing and delivering a water wheel, generator, switchgear, transformer, substation, motor operated disc valve, and appurtenances for the Oakdale Power Plant in West Boylston, Mass. The materials to be furnished consist of a 327-r.p.m., 5000-h.p. water wheel driving a 4375-Kva, 6900-volt generator with direct-connected 125-volt exciter and appurtenant apparatus; switchgear including control panels, storage battery, buses, fuses, instruments, meters, relays, circuit breakers, control equipment and other mountings and devices; a 5000-Kva, 60-cycle, 3-phase, 6900-66000-volt transformer; a special motor operated 84-inch disc type valve; and appurtenant equipment. There are seven groups of items which may be awarded as a whole or as separate contracts, but no single group will be further subdivided and awarded to more than one bidder. Each bidder shall deposit security in the amount of not less than 5% of his bid (aggregate total of all groups bid). A bond in at least the full amount of the contract will be required of each successful bidder to secure the faithful performance of the contract, and for the payment of all persons performing labor or furnishing materials in connection therewith. The information for bidders, and the prescribed form of proposal, form of contract, plans, specifications and forms of bid bond and performance bond may be examined at the above address, and copies thereof obtained from Karl R. Kennison, Chief Engineer of the Commission, upon deposit of $5, to be refunded only to bidders or to others returning them within ten days after the opening of bids. The Commonwealth reserves the right to waive any informality in or to reject any or all proposals. No bidder may withdraw his bid within thirty days after the actual date of the opening thereof.

WILLIAM T. MORRISSEY, Chairman
November 6, 1946.

Bids: December 10, 1946 (317)

Water Softening Plant

THE VILLAGE OF CLINTON,
NEW YORK

Sealed bids for the construction of softener building addition to the present chlorine building, salt storage tank, two softeners, controls, piping, valves and apportenances will be received at the Village Offices, Clinton, New York, until 7:30 P. M., Eastern Standard time, December 10, 1946, and then at said Village Offices, publicly opened and read aloud.

The Information for Bidders, Form of Contract, Plans, Specifications, and Form of Performance Bond may be examined at the office of the Village Clerk, Village Offices, Clinton, New York and at the office of Keis & Holroyd, Consulting Engineers, 257 Broadway, Troy, New York, copies thereof may be obtained at the said office of Keis & Holroyd upon payment of $25.00 for each set. Any bidder upon returning set in good condition will be refunded his payment and any non-bidder upon so returning such set promptly will be refunded $20.00.

The Board of Trustees, Clinton, New York reserves the right to waive any informalities in, or to reject any, or all bids.

A certified check made payable to the Order of the Board of Trustees, Clinton, New York, in the amount of five per centum (5%) of the bid must be deposited by each bidder with his bid as a guarantee that in case the contract is awarded to him, that he will, within five (5) days thereafter, execute such contract and furnish a satisfactory performance bond. On failure to do so he shall forfeit the deposit as liquidated damages, and acceptance of the bid will be contingent upon the fulfillment of this requirement by the Bidder.

The successful bidder will be required to furnish a performance bond satisfactory to the Board of Trustees of Clinton, New York, in the amount of the contract, and having as surety thereon such surety company or companies as are acceptable to the Board of Trustees of Clinton, New York.

The work will be let in two separate contracts as follows:

Section #1—General Construction
Section #2—Water Softening Equipment, Piping and Appurtenances.

No bidder may withdraw his bid within forty-five (45) days after the date set for the opening thereof. Any bid may be withdrawn prior to the above scheduled time for the opening of or authorized postponement thereof.

ARTHUR W. SCOONES, CLERK
Dated: November 6, 1946
Keis & Holroyd
Consulting Engineers

Bids: December 12, 1946 (311)

Construction of Sewage Treatment Works

Sealed proposals for furnishing all labor and materials for the Construction of a Sewage Treatment Works for a Population of 20,000 Persons in Abington Township, Montgomery County, Pennsylvania will be received by the Secretary of the Commissioners of Abington Township at the Township Office, York Road and Horace Avenue, Abington, Pennsylvania, up to 6:30 o'clock P. M. Eastern Standard Time, and will be publicly opened and read aloud at 7:00 o'clock P. M. Eastern Standard Time on THURSDAY, DECEMBER 12, 1946

The work will be divided into four contracts designated as:

CONTRACT NO. 4—STRUCTURAL
CONTRACT NO. 5—MECHANICAL
CONTRACT NO. 6—ELECTRICAL
CONTRACT NO. 7—HEATING & VENTILATING

Information for Bidders, Form of Bid Specifications and Form of Contract may be examined at the Township Office or at the office of Albright & Friel Inc., Consulting Engineers, 1520 Locust Street, Philadelphia, Pennsylvania, and copies thereof may be obtained at either office, upon a deposit of $20.00 for each set of documents for each contract. If the documents are returned in good condition within five days after the opening of bids, the full amount of the deposit for one set will be returned to each actual bidder and other deposits will be refunded with a deduction of $10.00 to defray the actual cost of reproduction. If the documents are not returned within the time stated, the entire amount of deposit will be forfeited.

A certified check or bid bond drawn to the order of Abington Township equal to five per cent of the amount of bid must be submitted with the proposal.

The proposal must be sealed and marked "SEALED PROPOSAL FOR CONSTRUCTION OF SEWAGE TREATMENT WORKS —CONTRACT NO. 4 and/or 5 and/or 6 and/or 7" addressed to the "Commissioners of Abington Township, c/o E. Raymond Ambler, Secretary".

The Board reserves the right to reject any and/or all bids.

No bid may be withdrawn within thirty (30) days after the actual date of the opening thereof.

E. RAYMOND AMBLER,
SECRETARY

NOVEMBER 14, 1946

Bids: December 2, 1946 (325)

Construction of Concrete Bridge

Sealed proposals will be received by the Chairman of the Public Works Committee of the Board of Freeholders of the County of Bergen at the Office of the Clerk of the Board, Hackensack, N. J., on Monday, December 2, 1946 at 10:00 A.M. for the construction of steel beam and reinforced concrete bridge on Bogerts Mill Road Bridge over the Pascack Brook in the Borough of Harrington Park, New Jersey.

Specifications may be seen and forms of proposals obtained not later than one day before letting, at the Office of County Engineer, Administrative Building, Hackensack, N. J.

The Bidder's name must appear on the envelope and failure to comply therewith may cause the rejection of the bid.

All proposals must be accompanied by a certified check for ten per cent of the amount bid, payable to the order of the County of Bergen.

The bidder must accompany his bid with a certificate from a surety company acceptable to the Board of Freeholders that such surety company will provide the bidder with a bond, as is required in said specification.

Each bid must be enclosed in a securely sealed envelope and endorsed: "Proposal for the construction of steel beam bridge on Bogerts Mill Road Bridge, Harrington Park, N. J."

The right to reject any or all bids for any cause whatsoever is hereby reserved.

CHARLES B. BLEASBY, CHAIRMAN
PUBLIC WORKS COMMITTEE.
William R. Smith, Clerk.

Bids: November 27, 1946 (320)

State Highway Work

Sealed Proposals will be received by Henry A. Cohen, Director, Bureau of Contracts & Accounts, 14th Floor, The Governor Alfred E. Smith State Office Building, Albany, N. Y., until ten-thirty o'clock A.M., eastern standard time, on *WEDNESDAY, NOVEMBER 27, 1946*, for the construction and reconstruction of highway projects, in the following COUNTIES:

County	Deposit for plans	Bid deposit	Type	Miles	Dept. estimate
CONSTRUCTION					
Bronx	$5	$2,000	Relocating Apartment Buildings	....	$40,000
Bronx	5	3,000	Relocating Buildings	....	57,000
Monroe	10	19,000	Col. Conc. 8" & Var. thk. 2 @ 24' width; Bit. Mac. MM. Opt.:Grading; Misc. Work	2.86	$345,000
New York	20	74,000	Pigid Frames 88' 20.2'; Viaduct 9½ spans 42' each Conc. 9" thk. 2 @ 36'; Misc. Work	....	1,240,000

(Continued on page 31)

OFFICIAL PROPOSALS

(Continued from page 30)

RECONSTRUCTION					
Chemung	5	8,500	Conc. 8" thk. 20' 22' width; Misc. Work	1.91	161,000
	20	80,000	"I" Beam 54' Span; I-Beam (Alpha); 82' span; Grading & Structures; Asphalt Conc. Opt.*	9.37	1,371,000
Livingston	20	57,000	I-Beam 40' span; Conc. Slab 25' span; Conc. Slab 21' span; Extended right & left Conc. 9' thk. 24' wdt.	9.28	1,047,000
Nassau	5	4,000	Installing Traffic Signal System	4.36	74,000
Onondaga	10	48,000	Conc. 8" thk. 22' 33' 34' & 40'	11.18	815,000
Ontario	5	14,000	Conc. 9", 8" 7" 8"; 6" thk. 46' & 22' wdt. Misc. Work	1.83	262,00
Schoharie	10	55,000	Conc. 8" thk. 2 @ 24' 46' 48' wdt.	4.99	1,004,000

*This project involves the use of Alpha Composite Construction which is patented, and the royalty is $59.50.

Maps, plans, specifications, and estimates may be obtained at the office of the Department of Public Works, Bureau of Contracts & Accounts, Albany, N. Y., and at the office of the District Engineers in whose districts the roads are located. The names and addresses of the District Engineers will be furnished on request and may be seen at the office of the State Department of Public Works, State Office Building, Room 898, Worth & Center Streets New York City.

The deposit for Plans and Proposal Forms for each contract containing 1 to 15 sheets is $5.00; 16 to 30 sheets, $10.00; over 30 sheets, $20.00. A refund will be made in full to bidders for return of one set, in good condition, within 30 days of award, or rejection of bids; refund for all other sets in good condition, similar period, will be 50% of deposit.

Special attention of bidders is called to "General Information for Bidders" in the proposal, specifications, and contract agreement, and to the special provisions applying to projects financed with federal funds.

Proposal for each contract must be submitted in a separate sealed envelope with the name and number of the contract plainly endorsed on the outside of the envelope. Each proposal must be accompanied by cash, draft or certified check payable to the order of "State of New York, Commissioner of Taxation & Finance" for the sum as specified in the advertisement and the proposal. The retention and disposal of the bidding check, the execution of the contract and bonds shall conform to the provisions of the Highway Law, as set forth in "Instructions to Bidders."

When optional types are permitted on contracts with federal funds, bidders must state in the space provided in the proposal the exact designation of the optional type upon which the proposal is predicated.

Minimum Wage Rate per hour for above work shall be as follows:

County	Skilled Labor	Intermediate Grade Labor	Unskilled Labor
Bronx	$1.20	$	$1.20
Chemung	1.00	.90	.90
Livingston	1.00	1.00	.85
Monroe	1.15	1.00	1.00
Onondaga	1.20	1.10	.95
Ontario	1.15	1.07½	1.00
Schoharie	.90	.85	.85
Nassau	1.40	1.25	1.20
New York	1.20	1.20	1.20

UNLESS SHOWN OTHERWISE IN THE ITEMIZED PROPOSAL FOR EACH PROJECT. The right is reserved to reject any or all bids.

CHAS. H. SELLS
SUPT. OF PUBLIC WORKS

Bids: November 26, 1946 (315)

Construction of Sewer Improvements

NOTICE IS HEREBY GIVEN that pursuant to a resolution of the Town Board of the Town of Greece, Monroe County, New York, sealed proposals shall be received and considered by said Town Board on the 26th day of November, 1946 at 2 o'clock P.M. Eastern Standard Time, at a meeting of the Town Board in the Town Hall in the Town of Greece, Monroe County, New York, for the furnishing of all meterials and equipment together with all labor for the construction of improvements to the Sewer System of Sanitary Sewer District #1, Town of Greece, in accordance with proposed contract plans, profiles, drawings, instructions to bidders, specifications and estimates prepared by Francis H. Carroll, Civil Engineer, and approved by the Town Board of said Town, all of which are on file with the Town Clerk at his office in the Town Hall of said Town where the same may be examined during the usual business hours. Copies of the proposed plans, profiles, drawings, instructions to bidders, specifications and estimates may also be examined at the office of Francis H. Carroll, Engineer, at his office at 407 Terminal Building, City of Rochester, New York.

Each person or corporation desiring a copy of said proposed contract, plans, profiles, drawings, instructions to bidders, specifications and estimates, shall before taking the same, deposit to guarantee the safe return of such plans and specifications, the sum of Ten Dollars ($10.00) for each copy thereof taken. If a proposal is duly submitted by any person or corporation making the required deposit, and such proposal is accompanied by a certified check, or other security, in accordance with the requirements contained in this public advertisement for bidders, the full amount of such deposit for one copy of the plans and specifications shall be returned to such person or corporation if the copy of the plans and specifications used by such person or corporation is returned in good condition within thirty (30) days following the award of the contract covered by such plans and specifications, or the rejection of the bid of such person or corporation.

Each proposal must be accompanied by a certified check in the sum of $3,250.00 payable to the order of Gordon A. Howe, Supervisor of the Town of Greece, or a bond with sufficient sureties to be approved by the Supervisor in the penal sum of $3,250.00 conditioned that if his proposal is accepted he will enter into a contract for the same, and that he will execute such further security as may be required for the faithful performance of the contract. The Town Board reserves the right to reject any and all bids and proposals and to advertise anew, and to award one contract for the entire work or separate contracts for portions thereof if in its judgment it shall deem it to be for the best interests of the Town so to do.

The Engineer's estimate is $61,870.00.

BY ORDER OF THE TOWN BOARD
TOWN OF GREECE
Hugh T. Hughes
Town Clerk

Dated: November 4, 1946.

Bids: January 9, 1947 (327)

Construction of Water Pump Station

ASHLAND WATER WORKS COMMISSION
NOTICE TO CONTRACTORS

Sealed proposals endorsed "Proposal for Constructing the Water Pumping Station" will be received by the Chairman and Commission of the Ashland Water Works Commission, Ashland, Wisconsin, in the office of the Commission, 220 East Second Street, Ashland, Wisconsin, until 10:00 A.M., Central Standard Time on the 9th day of January, 1947, and will be publicly opened and read aloud.

The proposed work comprises the construction of a new pumping station and the connecting of the existing chlorine building thereto; the razing of the existing chlorine annex to the existing pumping station; furnishing and installing pumping equipment, together with all appurtenances, materials, and equipment. Also included is the construction of roadways, walks, inside and outside piping and incidental work.

The work will be let in two Contracts:

Contract 1—Structures and Equipment
Includes everything, except the furnishing and testing of the pumping equipment included under Contract 2.

Contract 2—Pumping Equipment
Includes furnishing, F.O.B. Ashland, Wisconsin, supervising installation and testing high lift and low lift pumps with drive units and accessories.

Proposals must be submitted on the forms furnished by the Commission, must contain the name of every person interested therein, and must be accompanied by a certified check in the amount of not less than 5 per cent of the bid, payable to the Ashland Water Works Commission, as a guarantee that, if the bid is accepted, the bidder will execute and fill in the proposed contract and bond within 3 days after the award of the Contract.

The Ashland Water Works Commission will not accept a bid bond or any other form of security in lieu of a certified check to cover the deposit.

Instructions to Bidders, Proposal Forms, Contract, Specifications, Bond Form and Plans may be obtained from the office of Greeley and Hansen, Engineers, 220 South State Street, Chicago 4, Illinois, or from the Ashland Water Works Commission, Ashland, Wisconsin, on deposit of $10.00, which sum so deposited will be returned in full if said Contract Documents are returned in good condition within 5 days after the opening of bids.

The Ashland Water Works Commission reserves the right to reject any or all bids and to waive or not waive any informalities in the bids received.

Acceptance or rejection of proposals will be made as soon as practicable after the bids are received, but the Commission reserves the right to hold bids for 30 days from the date of opening.

Dated this 21st day of November, 1946.

ASHLAND WATER WORKS COMMISSION
ASHLAND, WISCONSIN
By: PAUL BINSFIELD,
Chairman

Bids: December 4, 1946 (316)

Brooklyn-Battery Tunnel Brooklyn Ventilation Building

TRIBOROUGH BRIDGE AND TUNNEL AUTHORITY

Sealed bids for furnishing all labor and materials for:

Contract No. 15-A—General Construction Work

Contract No. 15-B—Plumbing Work
and
Contract No. 15-C—Electrical Work

for the Brooklyn Ventilation Building of the Brooklyn-Battery Tunnel will be received by the Triborough Bridge and Tunnel Authority at the Engineer's Office Building, No. 10 State Street, Borough of Manhattan, New York City, until eleven-thirty (11:30) o'clock A.M., Eastern Standard Time on Wednesday, December 4, 1946, at which time and place they will be publicly opened and read.

The Information for Bidders, Form of Contractor's Bid, Form of Contract, the Specifications, the Plans and the Forms of Performance and Labor and Material Bonds may be examined at the office of the Chief Engineer of the Authority at the Engineer's Office Building and copies thereof may be obtained upon deposit of $20.00 for each set, to be refunded upon return of the Plans and Documents in good condition within thirty (30) days after the opening of bids.

New York, November 12, 1946.

Triborough Bridge and Tunnel Authority
George E. Spargo,
General Manager and Secretary.

Bids: December 10, 1946 (326)

Construction of Timber Bulkhead

Sealed bids or proposals for the construction of a timber bulkhead and shoreward fill on the east shore of Huntington Harbor, ¼ mile north of the Mill Dam Road, will be received by the Town Board of the Town of Huntington, N. Y., at their Board Room in the Town Hall at Huntington until 2:30 p. m., on the 10th day of December, 1946, when they will be publicly opened and read.

Each bid must be accompanied by a certified check in the amount of 5 per cent of the amount of the bid made payable to Walter H. Fasbender, Supervisor.

The award will be made within ten days of the opening of the bids.

The time allowed for the performance of the work shall be six calendar months from the date of the execution of the contract. This extended time limit is intended to cover and must cover any and all delays caused by government preferentials, shortage of materials, or other delays in execution.

A bond guaranteeing specific performance of the contract will be required in an amount equal to 100 per cent of the contract price.

The work consists of the construction of a timber bulkhead 511 feet in length and a shoreward fill of 6000 cubic yards, or as much thereof as the appropriation of $30,000.00 will build at the bid price.

The gross approximate quantities of the materials required are as follows: Fender anchor and brace piles 135; Wales 11,900 square feet board measure; Sheathing 86,000 square feet board measure; Tie Rods 3,100 lineal feet; and Fill. 6,000 cubic yards.

The Town Board reserves the right to reject any or all bids or to accept any bid which in their opinion is to the advantage of the Township.

Plans and the contract and specification may be seen and forms of proposal obtained at the office of the Engineer, Frank Asbury, at 355 New York Avenue, Huntington, N. Y., at any time or copies of the plan, contract and specification may be obtained from him for $5.00.

By order of the Town Board,
Town of Huntington
JOSEPH W. CERMAK,
Town Clerk.

EMPLOYMENT OPPORTUNITIES

RATE: 15 CENTS A WORD, MINIMUM CHARGE $3.00

Positions Wanted (full or part time individual salaried employment only), ½ the above rates, payable in advance.

Box Numbers in care of any of our New York, Chicago or San Francisco offices count 10 words additional in undisplayed ads.

Discount of 10% if one payment is made in advance for four consecutive insertions of undisplayed ads (not including proposals.)

Copy for new advertisements received until 10 A. M. Friday for following Thursday's issue

WANTED

DESIGNER DRAFTSMAN

for structural steel and reinforced concrete. Applicants please state age, education, previous experience and salary desired; photograph or snapshot not returnable.

AMERICAN ENKA CORPORATION

Enka, N. C. (near Asheville)

POSITIONS VACANT

WANTED—ENGINEERS experienced in the design of sewers, sewage treatment plants and water treatment plants. State qualifications, experience and salary requirements. P-787, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

STRUCTURAL ENGINEER, familiar with Bridge Design. Two structural draftsmen. State qualifications, salary required and date available. P-143, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

ASST. CIVIL Engineer Wanted: General engineering, office and field. Steady work. Vacation—Sick time. Department of Public Works, Hudson, New York.

ENGINEER-ESTIMATOR wanted. Plumbing, Heating, Air Conditioning. Firm located in Penna. College background desirable but not absolutely necessary. Permanent position. Salary $5000.00 to start. State age education, experience in first letter. Send photo, P-970, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

CONSTRUCTION SUPERINTENDENT for General Contractor engaged in public, commercial and industrial building construction. Give full details of experience, age, salary desired and references. H. A. Williams, 437 N. 23rd Street, Allentown, Pa.

WANTED: Experienced draftsman for structural steel and concrete design. Top rate for permanent work. Pleasant community on Lake Erie. Diamond Alkali Co., Painesville, Ohio.

TUNNEL FOREMAN with following: Good salary—long job. Send full qualifications and references first letter. Replies held confidential if desired. Mr. Ragonese, 115 S. Haven St., Baltimore 24, Md.

CONSTRUCTION SUPERINTENDENT: Need job superintendent capable of handling multi-story fireproof construction, hotels, apartment buildings and commercial structures. Must have good background and long experience handling men and subcontractors. Must have ability to organize and coordinate work. Permanent connection on yearly contract basis for right man. In first letter furnish complete summary of background together with references. Taylor Construction Company, 1776 Purdy Ave., Miami Beach, Fla.

ASSOCIATE ENGINEER—30-40, preferably licensed; Municipal and Power Plant experience desirable; for Consulting Engineer's office, Pittsburgh, Pa. P-177, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

POSITIONS VACANT

ASSOCIATE UTILITIES Engineer. Salary range $4560-$5520. A vacancy of Associate Utilities Engineer with the Connecticut Public Utilities Commissoin will be filled by competitive examinaton, open to citizens of the United States. Copies of the examination announcement giving full details as to the minimum requirements and application forms may be secured from the Personnel Department, State Capitol, Hartford. The last date for filing applications is December 5, 1946.

WANTED: Piping and Electrical Layout Engineer. Unusual opportunity for thoroughly experienced man to prepare layouts and specifications for plumbing, heating, process piping and electric work in industrial construcion projects for old well established engineering and construction firm in midwest. Send full experience record, age, salary, etc. P-175, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

ASSISTANT to established Kentucky Attorney with highly-diversified rapidly-growing patent practice. Must be technical graduate. Preferably between 29 and 39 with at least 5 years intensive experience in carefully preparing and prosecuting applications. Prefer: Quality over speed; ability to analyze and describe over large use of designating numerals. Knowledge of chemistry desirable, not essential. State age, education, length and character of experience, expected salary. Enclose photo. P-176, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

POSITIONS WANTED

TECHNICAL SERVICE engineer, 26, married, Civil Engineer, (B.S.—1941), 3 years heavy construction experience. Past 2 years with cement company and building maintenance materials manufacturer. Sales, sales promotion, complaint handling, technical consultations. Desire connection with firm requiring ambitious, resourceful, personable, tecnnically trained individual for sales promotion, service engineering, or advertising. Office or field. N. Y. C. only. Travel metropolitan NYC only. Present salary $3900, but position requires excessive undesirable traveling. Available January 1st. PW-125, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

CONSTRUCTION SUPERINTENDENT 45 Estimating experience, 20 years large building projects of all types, masonry and reinforced concrete specialist with cost conscious following. References. PW-137, Engineering News-Record, 330 W. 42nd 1t., New York 18, N. Y.

ATTENTION: Equipment or Material manufacturers-Distributors; Engineer-Estimator, 34, experienced in all types building, state highway, and heavy construction also two years equipment rating and interchangeability studies for national concern covering all types of equipment. Desires position as Sales manager or Salesman with reliable company, will locate anywhere—write or wire. PW-129, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

CIVIL ENGINEER: Graduate, 10 years experience field layout (transit and level) with inspection and supervision of construction on rolled-fill dams, concrete and steel structures, pumping stations, industrial plants, airports, pipe lines, harbors, and levees. A-1 record. Some office and accounting experience. Desires responsible connection where a quiet hard working dependable man is needed. Anywhere. Southern States preferred. Available December 1. PW-145, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

CONSTRUCTION SUPT.—Structural Engineer—Estimator. Age 44, 20 years experience dams, waterfront structures, parkways, roads, bridges, power plants, industrial buildings, wants position with small or medium size contracting organization with opportunity of obtaining interest in business. Present position, supervising Structural Engineer with large Consulting and Contracting firm. P.O. Box 164 Collingswood, N. J.

POSITIONS WANTED

CONSTRUCTION CLERK—Adaptable young man, five years experience, knows the business, has dependable car, free to travel. PW-161, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

REGISTERED ENGINEER with many years experience on deep foundations, heavy construction and fabrication of steel. PW-166, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

GRADUATE CIVIL Engineer, age 45, married, 17 years varied experience municipal and highway engineering. Last six years responsible position in Army. Desire permanent with good salary. Location immaterial. PW-166, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

CONTRACTORS SUPERINTENDENT: Graduate Civil Engineer Classified P-4, U. S. Civil Service Commission. Ten Years experience in heavy construction mostly waterfront and earth moving. Age 40, anywhere, immediate. PW-167, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

GRADUATE CIVIL Engineer, licensed, age 34, married, with more than 15 years experience in surveying, mapping, location work, design and construction. Excellent supervisor with experience supervising Spanish speaking designers in Latin America. At present finishing design on $1,750,600 project. Desires supervisory or administrative position in Latin America or U. S. PW-180, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

PROJECT ENGINEER, Architects Superintendent, graduate, 25 years experience office and supervising construction large industrial plants, dams, housing projects, docks. Desires permanent connection. Preferably in Southeast. PW-181, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

CIVIL ENGINEER; graduate; 37 years experience; industrial, water supply; hydro-electric; bridges; highways. PW-182, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

CIVIL ENGINEER, 24, single, experience in estimation, and field engineering. Prefer location in Midwest, consider otherwise. Want design, estimating, or field work. PW-183, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

CIVIL ENGINEER—27, married, B.C.E. Degree, Experience in all phases of surveying and soil mechanics engineering, with good educational background in structural design, seeks position in soil mechanics or structural design, vicinity—N. Y. C. Leonard A. Robins, 41-08 42nd St., L. I. C. 4, N. Y. STillwell 4-7814.

MIDDLE AGE Executive type man desires position as shop superintendent of some wide awake fabricator of structural, plate or tank steel. Twenty-five years experience, best of references. Available on very short notice. PW-170, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

MASTER MECHANIC, mechanical supervisor or service manager, age 39, sixteen years experience supervising repair, operation, making appraisals and inspection of heavy equipment desires location in south or southwest; will accept job as field service engineer; now employed; available Jan. 1st. PW-171, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

ROCK and grade Foreman experienced in sewer, power plant excavation, etc. PW-178 Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

ENGINEER STRUCTURAL Mast. Degree, 18 years experience office and field steel, reinf. concrete hydro-plants. PW-179, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

PART-TIME WORK WANTED

STRUCTURAL STEEL Shop Drawings. Industrial building plans, Concrete design, by Registered Engineers. Georgia Detailers Association. Box 191, East Point, Ga.